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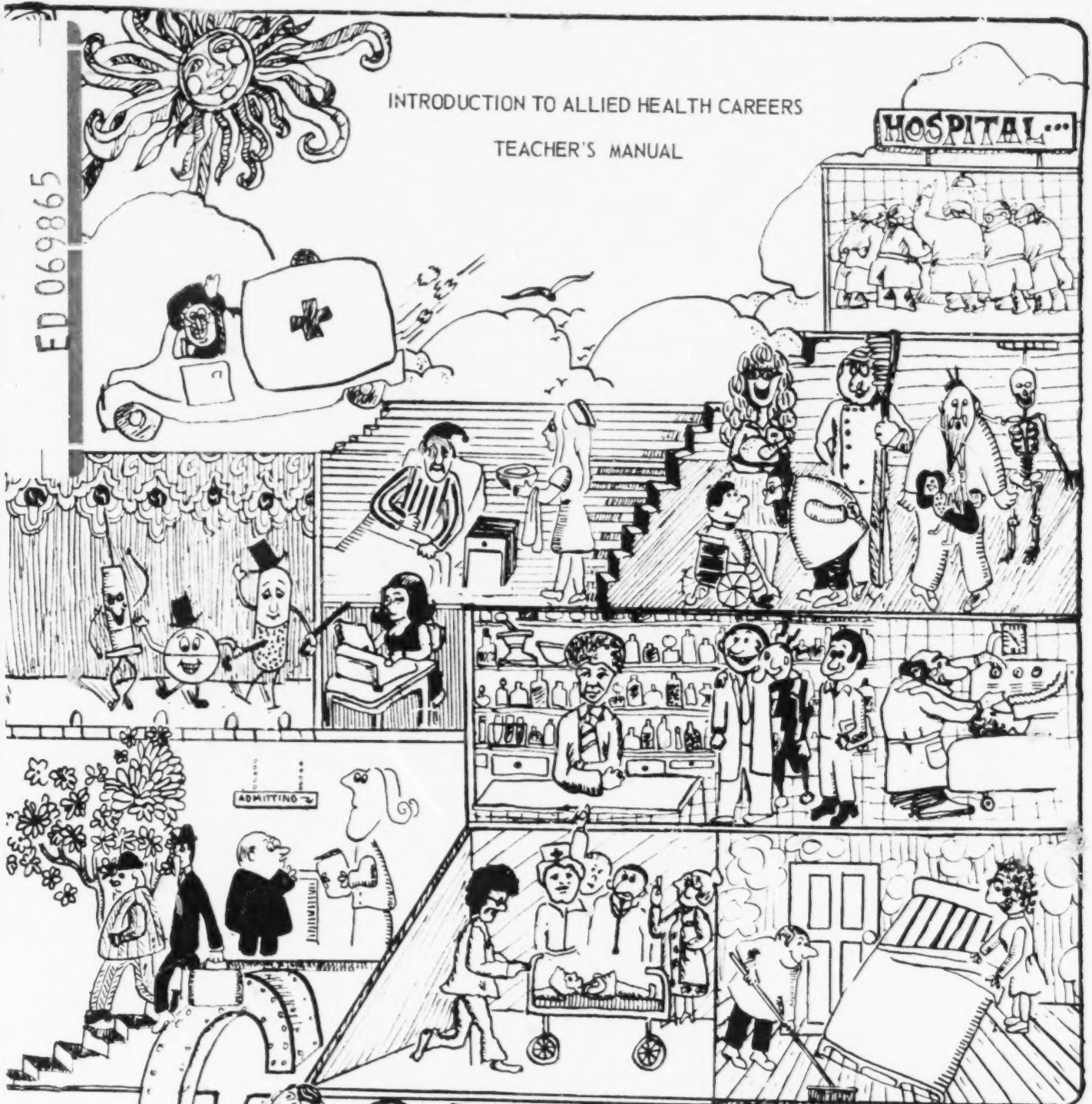
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ABSTRACT

This teaching manual covers a 1-year introductory program for Grade 10 for various allied health occupations as part of a 3-phase individualized, integrated curriculum entitled "The Health Care System," which includes work study and optional cooperative education. Field trips, field experiences, and exploratory work experience in health care facilities supplement classroom learning activities for these three modular units: (1) an orientation to the health care system, which provides an overview of its occupations, problems, and practices, (2) eight fictitious case histories which introduce students to the functions and responsibilities of health care personnel, and (3) three units dealing with preparation for field work at a hospital, the actual experience, and a summation unit. This federally funded pilot and demonstration project was developed by the project staff with the aid of a national advisory committee of leaders in the health care field. Instructions on using the manual and a discussion of the curriculum philosophy and design are included. Learning activities, teaching procedures, and general and specific behavioral goals and objectives are provided, in addition to resource and reference lists and materials. (Several pages may be light.) (AG)

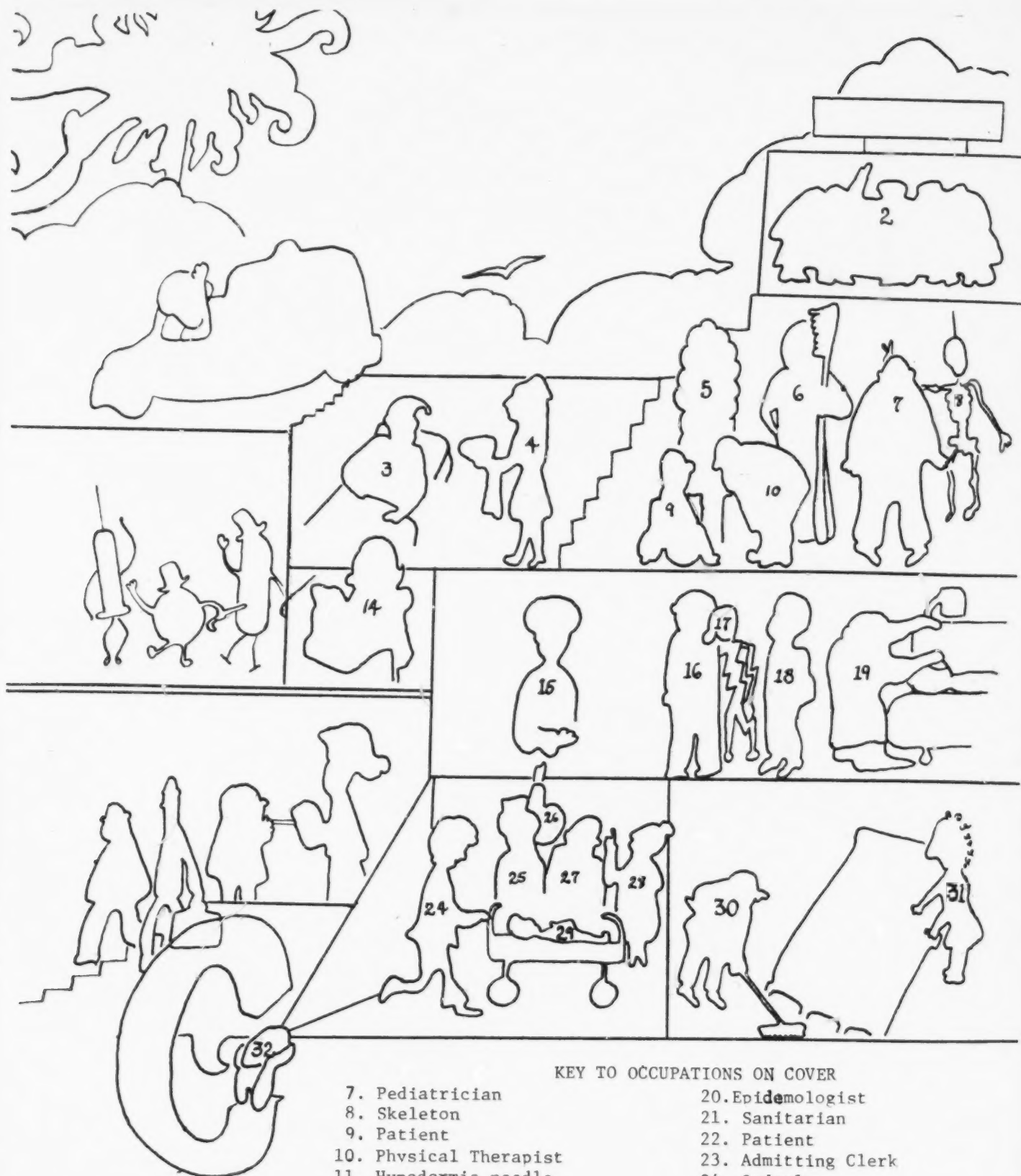
HOSPITAL...

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...An Invitation to Enter the Health Professions

VT017455



KEY TO OCCUPATIONS ON COVER

1. Ambulance Driver
2. Surgery team
3. Patient
4. Licensed Vocational Nurse
5. Dietician
6. Dentist

7. Pediatrician
8. Skeleton
9. Patient
10. Physical Therapist
11. Hypodermic needle
12. Tablet
13. Capsule
14. Medical Secretary
15. Pharmacist
16. X-ray Technician
17. X-ray
18. Radiologist
19. Inhalation Therapist

20. Epidemologist
21. Sanitarian
22. Patient
23. Admitting Clerk
24. Orderly
25. Nurse (R.N.)
26. Orthopedic Technician
27. Phvsician (M.D.)
28. Lab Technician
29. Patient
30. Housekeeper
31. Nurse's Aide
32. YOU (AHPP Student)

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INTRODUCTION TO ALLIED HEALTH CAREERS

TEACHER'S MANUAL

Secondary School

Pilot and Demonstration Project

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Division of Vocational Education
ALLIED HEALTH PROFESSIONS PROJECT

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FOREWORD

The Division of Vocational Education, University of California, is an administrative unit of the University which is concerned with responsibilities for research, teacher education, and public service in the broad area of vocational and technical education. During 1968 the Division entered into an agreement with the U.S. Office of Education to prepare curricula and instructional materials for a variety of allied health occupations. For the most part, such materials are related to pre-service and in-service instruction for programs ranging from on-the-job training through the Associate degree level.

A National Advisory Committee, drawn from government, education, professional associations in the health care field, and the lay public, provides guidance and help to the over-all activities of the Allied Health Professions Project. The following individuals and institutions participate in the activities of this nationwide interdisciplinary body:

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As work progressed under the guidance of the National Advisory Committee and the National Technical Advisory Committees for the specific occupations, the program was broadened to encompass appropriate orientation and job-preparation activities at the secondary level. The present document is an outgrowth of this broader approach to recruitment for the allied health professions, now being used by a consortium of school systems and high schools, hospitals, and junior colleges in the Los Angeles area. It is hoped that it may have broader application wherever educators seek to offer high school students the kind of introduction to allied health that will afford them early opportunities for gainful employment.

Melvin L. Barlow, Director
Division of Vocational Education
University of California

Professor of Education, UCLA

Principal Investigator
Allied Health Professions Project

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Revisions were effected with skill and understanding by Jerome Epstein. Our editors, Sylva Grossman, Seba Kolb, and Mary Ellison, were most helpful, as were our secretaries, especially Margaret Campbell and Judy Dobson, who worked diligently, cheerfully, and long.

Diane E. Watson, Deputy Director
Secondary Schools Project
Allied Health Professions Project

November 1971

PREFACE

This manual covers a one-year Introduction to Allied Health Careers--the first phase of a three-phase curriculum, "The Health Care System."

Phase I - Tenth grade school year: Introduction to Allied Health Careers

1. Field trips and field experiences in health care facilities, integrated with classroom experience.
2. Opportunity provided for exploratory work experience.
3. Tutorial assistance for students, as needed.

Phase II - Work Study

1. Students who have completed the first year of the program participate in further work experience training within a health care facility setting.
2. Students begin to make choices and receive training in specialized occupations.

Phase III - Optional Cooperative Education Plan

1. Students will be assisted in finding part-time employment if desired, or directed into specialized occupational training.
2. Students will be assisted in developing upward mobility skills on the career ladder.
3. Students enrolled in a college preparation course may choose not to enter Phases II or III of this program in order to complete college entrance requirements.

Phase I consists of the three modules making up this manual, each dealing with a chronologically and procedurally distinct aspect of the school year.

Module I, "Orientation to the Health Care System," offers an overview of health care facilities, occupations, problems and practices, and includes field trips to facilities in the community.

Module II, "Meeting the Needs of the Patient through the Health Care System," presents fictitious case histories through which students are introduced to the ways in which health care personnel function in caring for patients, and to the knowledge and skills needed for each task.

Module III, "Working in the Health Care Community," is built around a four-week period in which students actually work in a health care facility. A unit of preparation preceding the work period and a summation unit following it complete the module.

HOW TO USE THE MANUAL

Each module is divided into units which represent from one to four weeks of work and study. At the beginning of each unit you will find a statement of the purpose, a list of objectives and a description of the procedures of the unit. The statement of purpose relates the unit to the curriculum as a whole, clearly stating why the objectives of the unit have been selected. The objectives indicate the specific performance that is to be expected of the student on completion of the unit. The procedure describes how the subject matter of the unit is to be handled.

The subject matter itself then appears in the form of various suggested activities and materials which may be used in reaching the objectives. These suggestions are intended to serve as guides in planning classroom activities and experiences and need not be followed slavishly, but may be modified or even in some cases replaced. Before deviating very far from what has been offered, however, please seriously consider the following points.

1. Although, as has just been suggested, the teaching procedures are somewhat flexible, the objectives are not. Students will be required to demonstrate the learning stated in the objectives.
2. Student performance on individual units is not the total purpose of the program. The curriculum has been designed not only to teach and to train, but to encourage the student to set goals within the field of health and to continue the schooling necessary to reach those goals. There is little value in pushing students into successful completion of two or three units if they then drop out of the program or out of school. To hold student interest, emphasis has been put on active rather than passive learning, on doing rather than simply listening or watching, and on classwork directly related to specific tasks or problems rather than on abstract principles. A teacher who is not experienced with providing this type of learning opportunity should follow the suggestions quite closely.
3. The various units are interrelated. Before changing the content of a particular unit, read the stated purposes of all the units to be sure you are not upsetting the relationship between units.

4. Finally, the basic structure of the course should not be seriously altered. Regardless of changes of content within units, the general pattern of field trips and health care facility work experience should be maintained, following as closely as feasible the suggested sequential schedule.

This manual is designed to facilitate the classroom aspects of Phase I. Details of the content and procedures of the Field Trips and Work Experience are presented in a separate Program Guide.

CURRICULUM PHILOSOPHY AND DESIGN

The Secondary Schools Project has designed its first-year curriculum, "An Introduction to Allied Health," with the following philosophy and purposes in mind.

1. To integrate the goals of vocational (or task-oriented) education with those of academic education, i.e., to provide a bridge between education and the world of work so that the student is able to continue acquiring academic skills while achieving the skills required for employment and career mobility. In this context, teaching academic subjects without relating that knowledge to actual job tasks and skills may seem irrelevant to the student. Conversely, teaching only job tasks and skills is not sufficient to motivate and prepare the student to seek further education and/or better job opportunities. With knowledge related to task and skill performance, it is hoped that the student will be able to see the relationship between education and training, and between employment and upward mobility.
2. To design a curriculum relevant to present and projected manpower needs in the allied health field. In order to meet this goal, a flexible curriculum had to be developed which would be adaptable in terms of occupations pertinent to the manpower needs of any local community. This could be accomplished by presenting a large number of occupations and related tasks. Individual instructors can then select areas to stress on the basis of local needs.
3. To provide an individualized curriculum that insures successful learning for all students. If this curriculum is properly designed, no student should experience failure; each student should have the opportunity to achieve success in his areas of competency and should be given the opportunity to acquire additional areas of competence. The design of such a curriculum necessitates including a large number of student activities requiring all kinds of skills - not merely the traditional reading and writing.
4. To develop a curriculum in which the content is organized to be presented in increasing levels of difficulty, requiring success at each level.
5. To employ innovative teaching techniques to motivate and interest the students. A variety of student activities would be designed which involve different types of skills. Student

observation and performance of tasks done by allied health workers, and field trips as well as work experiences, would be essential elements of this curriculum.

6. To use the team approach to curriculum planning, implementation, and evaluation - the team to consist of Secondary Schools Project staff, teachers, and hospital administration.

MODULE I

ORIENTATION TO THE HEALTH CARE SYSTEM

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 1: Health Care Facilities and Occupations

PURPOSE

To introduce the student to the facilities which are part of the health care system, and to the occupations within those facilities.

To acquaint the student with some specific tasks associated with the various occupations.

To provide the student with an opportunity to learn directly from health care personnel by observing them in action on the job and by questioning them.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 1: Health Care Facilities and Occupations

OBJECTIVES

The student should be able to list several hospital departments and name some health occupations within them.

Student should be able to list methods of identification (name badges, etc.) of various health personnel in hospital and other health agencies.

Student should be able to list several health occupations and give some information on basic tasks.

Student should be able to demonstrate proper hospital behavior.

Student should be able to demonstrate knowledge of ethical behavior including employee-patient relationship.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 1: Health Care Facilities and Occupations

PROCEDURE

1. A few days of class preparation for health care facility visits, including:
 - a. A brief introduction to health practices.
 - b. Some indication of the sorts of occupations that will be found in the health care facilities.
 - c. A statement of what the student will be expected to observe and report back to the class.
 - d. Presentation of proper behavior and ethics in health care facilities.
2. Health care facility visits. A minimum of six hours are allotted for the visits. Those may be arranged as six one-hour visits, or three two-hour visits. Each visit is followed by a class discussion on the following day. Since it is these visits which will capture the student's interest, the first visit should be scheduled no later than the end of the first week.

The unit will cover two to three weeks depending on the number of days assigned to visits.

INTRODUCTION TO MODULE I

The Allied Health Professions Project students were selected in the ninth grade from a variety of junior high schools. On entering high school, in the tenth grade, students are new to the school, each other, and to the project. It is, therefore, important to review the program goals and plans the first class day.

The following outline summarizes the three-year Allied Health Professions Project.

I. PURPOSE

Program designed to interest high school students in various health occupations either following high school graduation or after further training.

II. REASON FOR PILOT PROJECT

- A. As a result of changes in the health care system and the increased demand for health services in the United States, a serious manpower shortage has arisen in this field.
- B. One hundred thousand new allied health workers will be needed in the United States every year.
- C. The United States Office of Education has funded this project as a method for increasing the number of workers in the field of allied health. High school students are a new source of manpower.

III. TYPES OF ALLIED HEALTH OCCUPATIONS

- A. Three general occupational areas.
 - 1. Patient Care and Community Health Services - e.g., occupations in mental health, social work, nursing.
 - 2. Technology services - e.g., laboratory occupations.
 - 3. Facility Support Services - Business and Administrative Services - e.g., services which are essential to the efficient maintenance and operation of the health care facility, such as the business office, purchasing department, and maintenance department. (Student will be given a choice among several available occupations in many areas.)
- B. Training in one area will not exclude the possibility of switching to another area or occupation if the student should make that decision.

IV. MECHANICS OF THE PROGRAM

Phase I - Tenth grade school year: Introduction to the Allied Health Occupations

1. Field trips and field experiences in health care facilities integrated with classroom experience.
2. Opportunity provided for exploratory work experience.
3. Tutorial assistance for students, as needed.

Phase II - Work-Study

1. Students who have completed the first year of the program participate in further work experience training within a health care facility setting.
2. Students begin to make choices and receive training in specialized occupations.

Phase III - Occupational Cooperative Education Plan

1. Students will be assisted in finding part-time employment if desired, or directed into specialized occupational training.
2. Students will be assisted in developing upward mobility skills on the career ladder.
(Explain career ladder concept.)
3. Students enrolled in a college preparation course may choose not to enter Phases II or III of this program in order to complete college entrance requirements.

PREPARATION FOR HOSPITAL OBSERVATION

Comparative Medical Practices

This portion of the unit consists of a presentation of slides depicting the following:

1. The practice of medicine from primitive eras to modern times.
2. Outstanding scientists whose contributions aided in the development of present-day medical practices.
3. Several departments of the modern hospital with appropriate personnel.
4. Patient care: in-patient and out-patient services.

COMPARATIVE MEDICAL PRACTICES

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Run through slides. (See pp. 10-14.) Inquire and have students name as many depictions as they can recall.	Watch slides.	Should be able to tell the difference between some older medical practices and newer techniques.
List students' selections on blackboard.	Raise questions for better understanding.	Should be able to recall some:
Rerun slides slowly.	Enter into discussions related to slides.	Hospital departments Occupations Few functions in modern setting.
Elicit any additional information from student on repeated slides.	List five hospital departments.	
Briefly describe what is depicted on slides.	List five hospital personnel (occupations).	Should be able to define some terms briefly.
Accept, answer queries concerning slides and related information.	List five new terms.	Should be able to point out relationship between science and applied art of medicine.
Stress terms, occupations, departments, and personnel depicted in modern medical practice slides.		Should be able to compare and contrast the old medical practice with the modern practice for a given health problem.
Relate and/or differentiate between older medical practices and modern techniques as depicted - mention ethnic groupings and medical approaches.		
Point out scientists' accomplishments and relate sciences to medicine.		
Supplementary Reading: <u>Devils, Drugs, & Doctors</u> , Howard W. Haggard, M.D. Pocket Books, Inc. Any chapter of interest to the student.	Supplementary Reading: <u>Devils, Drugs, & Doctors</u> , Howard W. Haggard, M.D. Pocket Books, Inc. Any chapter of interest to the student.	

ORIENTATION TO HEALTH CARE FACILITIES AND OCCUPATIONS

Comparative Medical Practices

Preparation for Hospital Observation

SLIDES

1. Hospital
2. Ambulance
3. Emergency Vehicle (Fire Department)
4. Information Desk - Hospital
5. Floor Admissions
6. Physician at Bedside
7. Pediatric Practice - Egyptian Eye Examination

Rhazes was a prominent Persian physician of the tenth century who published several medical texts in Arabic. Among his accomplishments were his clinically accurate description of smallpox and measles, his observation of pupillary reaction to light, the first book on childrens' diseases (pediatrics).

8. Ophthalmic (Eye) Examination (Old)

Hermann Helmholtz, a German scientist of the nineteenth century, made discoveries in several scientific fields. In medicine he is especially remembered for his work in acoustics and the discovery of the ophthalmoscope which allows for inspection of the interior of the eye.

9. American Indian Medicine Man

Primitive Medicine--In this picture a Navaho medicine man is shown performing a ceremony before the family and friends of the patient. The medical treatment combines dancing, chanting, prayers, and use of medicinal herbs.

10. Bedside Practice
11. Witch Doctor
12. Egyptian Physician at Bedside

While assistants hold down the patient and the priest asks for divine intervention, a first-century surgeon begins an operation to open the patient's skull (trephining), using obsidian knives, a crude plant narcotic, cotton, and bandages.

13. Ancient Healer

Susruta, famed Hindu surgeon, is about to form an artificial earlobe for a mutilated patient. He also published the Susruta-Samhita--an Indian text on surgery describing the ancient procedures and instruments.

14. Chinese Healing Arts

15. Nurse at Bedside - IV Pole

16. Teaching Interns (Old)

17. Teaching (New)

18. Teaching (Old)

Scottish-born John Hunter became 18th Century London's foremost surgeon and comparative anatomist. Among his 13,682 prepared specimens were the now-extinct great Auk and the skull of the Irish giant.

19. Panama Canal Zone - Common Disease

Dr. Walter Reed and Dr. Carlos Finlay cooperated in finding methods of controlling and preventing yellow fever. The result of their investigations proved conclusively that mosquitoes carry the yellow fever virus from person to person.

20. Hospital Personnel

21. Technician

22. Technician

23. Technician

24. Technician

25. Stethoscope sounds (Old)

In 1816, the Parisian Doctor Theophile Laennec devised a hollow wooden cylinder (now refined and called a stethoscope) for listening to sounds in patients' chests. The instrument led to a better understanding of diseases of the lungs.

26. Diagnostics

27. Microscope Lab (New)

Ramon y Cajal (1852-1934), who became one of Spain's leading medical scientists and a world-renowned neuroanatomist, is shown charting the nervous system.

28. Microscopes (New) - I

29. Microscope (New) - II

30. Microscope (New) - III (electron)

31. Pasteur in Lab Experiment

Louis Pasteur (1822-1895), a French chemist and biologist, worked to prove that germs cause diseases, that sterilization kills germs, and that vaccination can protect against infection.

32. Laboratory

33. Laboratory

34. Laboratory (Old)

In 1921, Charles H. Best and Dr. Frederick G. Banting found an extract of the pancreas that controlled high blood sugar (diabetes). The extract, insulin, is used to save the lives of those who formerly would have died of diabetes.

35. Laboratory

36. X-ray Laboratory

37. Pharmacy (Old)

The German scientist, Paul Ehrlich (1854-1915), was noted for the development of research techniques in medicine: chemical synthesis of drugs, chemotherapy, and immunology. He is shown in his laboratory scrawling out work orders to his associate.

38. Pharmacy

39. Administration of Medicine (Old)

While priests perform prescribed rites, an Egyptian physician (1500 B.C.) treats a patient for lockjaw in accordance with directions on a papyrus scroll.

40. Administration of Medicine (Old)

In 1747, a British naval surgeon, James Lind, conducted experiments proving that citrus fruit would prevent and cure scurvy.

41. Laboratory Animal - Testing

42. Lab Animal Used in Tests

43. Emergency Room

44. Dietary Department

45. Laundry

46. Autoclaves, Central Supply

47. Medical Records Library

48. House Painter (Support Services)

49. Security (Support Services)

50. Volunteer
51. Childbirth Labor (Old)
52. Birth Procedure
53. Birth Procedure
54. Birth Procedure
55. Birth Procedure
56. Birth Procedure
57. Birth Procedure
58. Birth Procedure
59. Birth Procedure
60. Birth Procedure
61. Maternity Nursery
62. Clinic Area - Pediatrics
63. Pediatric Clinic Waiting Room
64. Pediatric Clinic
65. Technician - Pediatrics Floor
66. Peds-Ortho Traction
67. Surgery (New)
68. Surgical Procedure-Amputation (Old)
69. Surgery (New)
70. Surgery Procedure (Old)
71. Surgery (New)
72. Surgical Procedure (Old)
73. Surgical Procedure (Old)
74. Surgeons of India
75. Early Twentieth Century Surgical Procedure

Harvey W. Cushing (1869-1939), who developed techniques for performing neurosurgery, is shown with a patient.

76. Surgical Procedure (Old)

Running out of boiling oil (the traditional treatment for gunshot wounds), French army surgeon, Ambroise Pare (1510-1590), is shown improvising. He observed that unburned wounds healed better than burned ones.

- 77. Amputation (Old)
- 78. Post Amputation Surgery
- 79. Amputee Physiotherapy - Learning to Walk (1)
- 80. Amputee Physiotherapy - Learning to Walk (2)

WHO'S WHO IN HEALTH CARE FACILITIES

Some of the major areas of patient care services are presented in story form. (See "Confusion in the Hospital," p. 17.) Personnel and their functions are highlighted. Patient care is best accomplished when persons involved understand their role in patient care. (To emphasize this concept, behavior and ethics are stressed in a separate section.) Discussion, lectures, and activities center around acceptable hospital behavior on the part of the student and the rights of the hospital patient. Stress is placed on the legal and moral responsibility of each hospital worker. The point is made that employment readiness is measured by the health worker's ability to integrate his learned skills with positive and proper interpersonal relationships.

WHO'S WHO IN HEALTH CARE FACILITIES

Supplementary Activity: Reading of story, "Confusion in the Hospital"

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Hand out copies of "Confusion in the Hospital." After class reading elicit questions, make clarifications. List occupations on board. Discuss main points, stress sub-objectives. List some main points. Ask questions to ascertain student's understanding. List sample questions. Make up test covering points stressed in story. Administer test in classroom, allowing students to refer to story.	Take turns reading story aloud to completion. Ask and answer questions concerning main points.	Should be able to recognize some hospital personnel by one or other of the following devices: a. Uniforms b. Name badges c. Emblems d. Pins Should be able to recognize some health agency personnel by: b, c, d, above. Should be able to tell that most professional hospital and agency personnel are licensed by successful passage of qualifying examination; that some para-professions are certified in some manner. Should be able to tell that professional as well as para-professional personnel usually belong to an organization composed of their peers. Should be able to take test designed on main points. THEREFORE, should be able to extrapolate appropriate material from body of story.

CONFUSION IN THE HOSPITAL

Debra Williams, an AHPP student, walked into a patient's room in time to hear the following conversation:

"Good morning, Nurse, I'm all ready for my bath." The speaker was Mrs. Vanette, an elderly patient. "And please give me an extra nice back rub," she added. "My back really aches today."

A pretty young brunette in a white uniform was standing at Mrs. Vanette's bedside. "I'm awfully sorry," she said pleasantly, "but I'm not a nurse. I'm a dietary aide. I just came in to pick up your menu for tomorrow's meals."

To the dismay of the aide, Mrs. Vanette burst into tears. The AHPP student was terrified. Forgetting one of the rules of hospital etiquette--always walk along the corridors--Debra ran from the room to the nurses' station.

"Miss Epps," she cried, "come quick. Mrs. Vanette is having a heart attack."

Linda Epps walked swiftly with Debra to the patient's room to find Mrs. Vanette sobbing uncontrollably and the dietary aide standing in silent distress.

Calmly and easily, Miss Epps soothed the patient and learned the cause of her outburst.

Mrs. Vanette wiped her eyes and said apologetically, "I'm so sorry I broke down like that. It's just that I've been here five days now and I can't seem to get people straight. It seems like all the ladies wear white. I thought only nurses wore white. How can you tell who is who when so many people don't even wear a uniform? Before my roommate was discharged yesterday, a young man came in with long hair and a beard, wearing jeans and an Agnew sweatshirt. I thought he was the television repair man and I told him how the set was acting. He fiddled with the knobs a few minutes, then told me he would report it out of order. It turned out he was Dr. Theodore Young. He was a psychiatrist." Mrs. Vanette wailed again. "I've made so many mistakes. Can't you see how frustrating it is?"

She seemed about to resume weeping. Miss Epps reassured her sympathetically.

"I agree with you absolutely, it is very hard, but I have a suggestion that might help. Look for the name badge. The badge will tell you the name, title, and department, unless the employee happens to be wearing street clothes."

"Well, that will help," agreed Mrs. Vanette. "I'll remember that."

Debra spoke meekly as she walked back to the nurses' station with Miss Epps. "I'm sorry," she said. "I really thought Mrs. Vanette was having a heart attack."

Miss Epps said comfortingly, "Well, you found a patient in distress so you ran for help. You did the right thing."

Debra was thoughtful. After a moment she said, "Miss Epps, do you think I could make a list of all the hospital people so we could give it to patients when they're admitted?"

"Well, we do have those little 'Welcome to Your Hospital' booklets, but they only tell about the hospital departments. Maybe you could do a little research and come up with something we could present to the Administrator. Would you like to do it?"

Debra agreed enthusiastically.

"All right then," said Miss Epps. "The floor census is low right now. We'll leave Miss Chaney in charge and spend an hour or so visiting the other departments. You can start your research right away."

After they had visited four departments, Debra realized that the undertaking would involve much time and work. But she had been so unsettled by Mrs. Vanette's complaint that she resolved to stick to the task.

Miss Epps, realizing that Debra's ambitious project would take a good deal of time, arranged with the Allied Health instructor to allow one hour a day for it. At the end of the month, the work was completed. Miss Epps was enthusiastic.

"Beautiful!" she said. "How did you collect so much material?"

"I made out a questionnaire," said Debra, and presented a copy to Miss Epps. "I thought it would be fun to try the questionnaire on our class, too," she went on. "I started in the Dietary Department, and I found out that everybody there wears white, and everybody wears a badge with name, title, and department. Most of the dieticians wear a pin with the American Dietetic Association emblem on it. That means the wearer has finished four years of college, one year of internship, and has passed an American Dietetic Association examination. She gets a certificate qualifying her as a Certified Dietician, and she must keep up her membership in the Association."



Miss Epps interrupted. "You mean that all dieticians are not entitled to wear the ADA pin?"

"That's right," said Debra. "A person who graduated from college as a dietician can be hired by a hospital only as a 'graduate dietician.' She might even be paid less although her duties would be the same as the registered dietician."

"What are the dietician's duties?" asked Miss Epps.

"The most important duty is direct supervision of preparing food for patients and hospital personnel. She also hires and trains dietary workers, manages budgets, buys food, receives doctors' orders, works out special diets, and plans regular and restricted menus."

Debra went on. "A hospital as large as ours has to employ several dieticians. I talked to my friend, Vicki Brown, who is a dietary aide here. She works on the food line, places items on the trays, makes salads and desserts, delivers trays, picks up menus--she is thinking of going to college to become a dietician."

VICKI BROWN
DIETARY AIDE

Debra's next visit, she told Miss Epps, was to the Radiology Department. The supervisor, Mr. Leroy Marvin, wore a short labcoat, a name badge, and a pin with the letters ARRT, which he explained stood for American Registry of Radiologic Technologists. ARRT gives the licensing examinations. The American Society of Radiologic Technologists (ASRT) is the professional society.

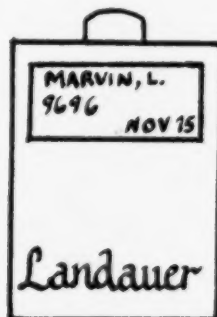
LEROY MARVIN
SUPERVISOR, RADIOLOGY



Since July, 1971, all radiologic technologists have been required to join ARRT in order to become licensed. This means completion of a two-year course at junior college and the passing of an examination. Hospitals might hesitate to hire an unlicensed technologist in the future, even though he had taken the two-year course.

Mr. Marvin explained that the radiologic technologist assists the radiologist, who is a doctor of medicine, in diagnostic X-ray. He takes radiographs of internal body parts, develops the film, and may assist in giving treatments to patients. All those who work with

X-rays nowadays wear the radiation detection badge for protection. The badge has a sensitive area which changes color when the wearer is exposed to X-rays.



RADIATION DETECTION BADGE

"Are all workers in the Radiology Department classified as technologists?" asked Miss Epps.

"Oh no," said Debra. "There are technicians who work under the supervision of the technologist. They do jobs such as positioning patients, developing film, setting up film, and preparing materials for treatment. They have completed a nine-to-twelve-month course. Then there are radiology aides, usually high school graduates who went through on-the-job training. The aides also work under the supervision of the technologist. One of their duties is transporting patients between Radiology and the nursing floors."

Mr. Tom Whiteside was next on Debra's list. He is the supervisor in the Physical Therapy Department. Everyone in the department wore white, Debra reported, and everyone wore a name badge, but Mr. Whiteside also wore a patch on the sleeve of his overblouse. The patch signifies that the wearer is a registered physical therapist. This requires a specific four-year course in college and a three month's affiliation with a hospital, after which the American Physical Therapy Association (APTA) certifies that the therapist is registered.



Within the last couple of years, Debra added, California law has required graduate physical therapists to become licensed by taking a state board examination.

"What about all the people in the Physical Therapy Department who don't have patches?" asked Miss Epps. "Who are they?"

"Technicians and aides," said Debra. "The RPT's work under the direct supervision of the doctor of Physical Medicine, called a physiatrist. The technicians and aides work under the supervision of the RPT's." She warmed to the subject. "Mr. Whiteside told me that RPT's use machines and equipment for disabled patients; they exercise them, stimulate the circulation, restore muscle tone--and the RPT trains and supervises the aides and technicians to help."

A message was delivered for Debra from Mr. Don Leonard, Chief Inhalation Therapist, promising that Debra could see a patient receiving therapy. Debra had already visited the department and had noticed three people wearing pins inscribed with a caduceus and the letters AAIT. Mr. Leonard explained that the letters stood for American Association of Inhalation Therapy and that the pin or patch is given for passing the AAIT examination.



To qualify for the examination requires an AA degree or two years of job experience and enrollment in the second year of the course. Every Registered Inhalation Therapist must belong to AAIT, and licensing will soon be required.

Aides and technicians are supervised by the RIT. The aide is usually a high school graduate given on-the-job training and allowed to perform simple tasks under supervision. The technician usually has a short course in Inhalation Therapy before taking the job. He can do more complex tasks than the aide, but is still supervised by the RIT. LVN's sometimes work as technicians, but cannot join AAIT.

"Some of the duties of the inhalation therapist," Debra explained, "include prescribed treatment for diseases which require oxygen administration or administration of medicine

which is inhaled by the patient. He also teaches patients how to do breathing exercises to improve their condition."

"What was the most difficult department?" Miss Epps asked.

"The medical laboratory," said Debra promptly. "They have so many different people--the medical technologist (MT), the cytotechnologist, the medical laboratory technician (MLT), the certified laboratory assistant (CLA). Mrs. Stewart, the Chief Technologist, explained it pretty well. I noticed that she was wearing a name badge and a pin that said ASCP (American Society of Clinical Pathologists). She told me that ASCP is an association of pathologists (M.D.s) who give the qualifying exam and certify those who pass it. Of course, in order to take the exam,

SANDRA STEWART
CHIEF LAB TECHNOLOGIST



a person must first complete a four-year college course which includes clinical experience in a hospital laboratory. MT's are licensed by the State, and most of them belong to ASMT (American Society of Medical Technologists). They must be prepared to hire, train, and supervise other lab employees."

She described the tasks of the MT's. They test human body fluids, do blood cultures, grow and identify microorganisms, study tissue cells for abnormal growth processes, and perform countless other tasks. The cytotechnologist, she explained, specializes in the study of body

cells and cell substances. He has to have two years of college (AA degree) and wears a pin inscribed ASCP and Registered Cytotechnologist. He, too, must pass an exam given by the ASCP.

The histologic technician is a person who has graduated from high school and finished twelve months of laboratory training. His specialty is preparing portions of body tissue for examination by the pathologist. This preparation includes staining the tissue with chemicals and placing the slide under the microscope. He wears a pin inscribed ASCP, and Histologic Technician. He is not required to take a qualifying examination.

In most states, the certified laboratory assistant can collect blood specimens, prepare and stain slides for the study of microorganisms, and do chemical tests on body fluids. He trains for the job with twelve months in a Certified Laboratory Assistant School. No qualifying tests are needed to secure the job. He wears identification as a Certified Laboratory Assistant.

JOHN STUDENT
CERTIFIED LABORATORY ASSISTANT
CLA

The medical laboratory technician has completed two years of college (AA degree), and wears no identifying pins or patches. His duties are varied, and include some of those mentioned under the other laboratory occupations. In California, however, CLA's and MLT's are not permitted to perform laboratory tests in most laboratories.

Debra looked quizzically at Miss Epps. "Are you thoroughly confused?" she asked.

"Not at all," said Miss Epps. "Your explanations were very clear. The only question I have is about the uniforms and name badges. Is the medical technologist the only person who wears a uniform and name badge?"

"Oh, no," said Debra. "Every employee wears a name badge and everyone wears some sort of white uniform--a smock, a lab coat, overblouse, or whatever."

"I see," said Miss Epps. "Another thing I've been wondering about--is the Nursing Department as confusing as you say in your report?"

"I'm afraid it is," said Debra. "Nothing personal, Miss Epps, but I found two, three, four, and five-year registered nurses; one-year LVN's, and orderlies and aides who had been trained on the job. I don't understand how a person who goes to college for two years and

gets an AA degree can take the same examination as someone who goes to college for five years and has a Master of Science. And they both wind up with an RN license! How do you figure that?"

"You've hit on a touchy point, young lady," Miss Epps admitted. "That's still the most controversial issue in Nursing. Some day soon, we hope, it will all be straightened out. All I can tell you now is that the nursing shortage forced a decision some years ago to shorten nursing education and turn out more nurses. This expediency has become a nightmare." She stopped herself to ask a question. "Tell me, did you find out the different functions of the RN's, LVN's, aides, and orderlies?"

"Oh, yes," Debra said, "all sorts of things. I'd better start with the uniforms. On this floor everybody wears white in different styles. The female RN's, LVN's, and aides wear dress uniforms, slack suits, or culottes. The RN's and LVN's (ladies, that is), have caps--the RN cap usually has a black band and can be very cute--the different schools have different caps."



RN Caps

"The LVN cap may or may not have a band. The RN's and LVN's don't always wear their caps but they always wear their school pin and their name badges. The male RN's and LVN's also wear school pins and name badges. The school pin indicates graduation from an RN or LVN school.



Nursing School Pins

There was much more Debra had to tell. "After she finishes nursing school, the RN student is eligible to take the California State Board Examination. The examination is made up by the National League for Nursing and is administered in all the States and possessions of the United States. After she passes her State Board Examination, she has the title, Registered Nurse; she is licensed and uses the initials RN."

The LVN, Debra said in her report, must also pass an examination. After passing the examination, she is known as a Licensed Vocational Nurse (LVN). She can then join the National Federation of Licensed Practical Nurses, which is what Vocational Nurses are called in all states except California and Texas.

In California, the practical nurse has taken a course in basic nursing techniques. She receives a pin on completion of training, but no license. Her duties are the same as those of aides or orderlies.

"I must apologize to the male RN's, LVN's, and practical nurses," Debra interrupted herself. "I keep saying 'she' in referring to them, yet there are many men in those categories."

She continued with the duties of nurses. The RN, she explained, receives orders from the physician for the care and treatment of the patients. If she is in charge, she delegates the more complex tasks to other RN's, the less complex to LVN's, and the simple tasks to practical nurses, aides, and orderlies. The aides and orderlies can take temperatures, count pulses and respirations, take blood pressures, and record. They can bathe and feed patients, walk them, and perform other tasks assigned to them by the RN who supervises their work. The LVN can do additional tasks, such as watching intravenous feedings, assisting physicians in examinations of patients, giving tube feedings and enemas and some medications.

RN's must be capable of doing all the tasks, as well as keeping accurate records, planning nursing care, teaching and supervising nursing employees.

Debra returned to talk of uniforms again. She said that the nursing staff on many Pediatrics cases wear pink and blue uniforms instead of white, because children are often afraid of white uniforms. All personnel wear badges and name pins. In the Psychiatric Department, the staff may wear street clothes without identifying badges or pins. This is to make the patients feel more comfortable.

Ward clerks working on the nursing floors wear designated uniforms. They also wear name badges. Ward clerks are specially trained office workers who do much of the nurses' clerical work.

"What about the other workers you mention in your report?" Miss Epps asked Debra. "Can you tell us about them?"

Debra explained about non-medical volunteers, who can be identified by their name badges. They run errands for the patients, read to them, write letters for them, and help them with their grooming. Candy-strippers are teenagers who do the same things. They wear striped uniforms and name badges.

Interns and resident physicians wear white lab jackets or coats, and name badges. Attending physicians, who come into the hospital to see patients, usually wear street clothes.

Health agencies other than hospitals rely on name badges, with uniforms worn only occasionally for protection. These workers might be sanitarians, public health nurses, social workers, or health educators.

Debra was finished. Miss Epps complimented her on a thorough job of research. "You've certainly helped to identify most of the people in a hospital," she said, "but I think you have forgotten something."

Debra was puzzled. Miss Epps pointed to Debra. Debra laughed.

"Me?" she said. "I'm Debra Williams, Allied Health Student, here to explore health occupations. I'm in the eleventh grade in high school. I spend two or three hours a day in Nursing, since I am interested in the field." She was silent a moment. Then she said, "You know, I'm not going to forget my name badge again. It's really very important, isn't it?"

Miss Epps agreed. Debra had learned a great deal as a result of Mrs. Vanette's hysteria.

BEHAVIOR AND ETHICS

All classroom activities to this point have been geared toward preparing the student for his observation visits to several departments of the hospital. This portion of the module deals with the visits. Suggested areas for student observation include the following departments: Nursing, Radiology, Physical Therapy, Dietary, Pharmacy, Pulmonary Function, Medical Laboratory, Engineering, Housekeeping, Laundry, etc.

Selection of departments for student visits should be made by designated hospital personnel and the Field Coordinator.

The Field Coordinator will give a list of selected departments to the project teacher. The project teacher will in turn designate which students are to be assigned to each department.

To assist the student in gaining valuable experience from the hospital observations, at least three departments should be made available to him. Such observation visits should be made in at least three consecutive field trips.

The day immediately following an observation field trip should be spent in the classroom. Each student, using the notes he has made concerning his experiences, will report to the class.

Preparation of the student for the observation visits will stress the fact that each student is responsible for furnishing an account to the class.

BEHAVIOR AND ETHICS

TEACHER CONTENT

I. Unacceptable Hospital Behavior

A. Personal

1. Excessive noise
 - a. Loud talking
 - b. Giggling
 - c. Screaming
 - d. Whistling
2. Sudden and Capricious Movements
 - a. "Horse Play"
 - b. Running
 - c. Moving without looking around (there is a constant flow of traffic and equipment in a hospital)
 - (1) Bumping into people, equipment
 - (2) Tripping
3. Congregating in Rooms or Hallways
4. Misuse of Facilities
 - a. Handling or touching patient equipment, furniture, etc.
 - b. Use of patient's facilities, e.g., patient restroom.
 - c. Eating from patient's tray.
 - d. Offering patient food or drink, (e.g., patient may be on restricted diet).
 - e. Eating in unauthorized areas (including smoking, gum chewing, etc.).

B. Ethics

1. Improper Communications
 - a. Inappropriate language
 - b. Violating the confidentiality of information heard or acquired; discussing personal information in public, e.g., in corridors, in elevators, with other patients, etc.
 - c. Discussion of illness with patient
 - d. Not referring requests of patients to appropriate personnel.

2. Unethical Behavior

Not controlling personal feelings and emotions, e.g., acting shocked, making faces, etc.

II. Qualities Vital to Good Patient Care

A. Good Grooming

1. Optimal cleanliness is essential to prevent carrying and transferring infection.
2. Perfume is never worn during working hours (Ill people are particularly sensitive to odors).

B. Appropriate Work Attitudes

1. Dependability with regard to reporting to work, performing assignments, completing work, etc.
2. Sense of responsibility.
3. A sensitive approach to patients, as well as other hospital employees, e.g., respect, patience, understanding, cheerfulness, attentiveness, etc.

C. Restricted Areas

Careful observance of all regulations regarding isolation areas where sterile technique is required, areas where there is a possibility of radioactive exposure, etc.

BEHAVIOR AND ETHICS

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Define the following examples: behavior, ethics Discuss codes of conduct in various situations, e.g., Boy Friend - Girl Friend (date) Young Child - Parent (outing) Employer - Employee (work) Nurse Aide - Patient (work) Define following terms: Malpractice, negligence, false imprisonment, consent, invasion of privacy. Lecture, discussion of patients' rights while hospitalized. Pose open end questions to elicit feed-back on terms defined; ask for examples.	Give definitions of behavior. Design cartoons illustrating improper work behavior. Role play situations indicated. Recall some hospital experiences. Will enter into discussion concerning legal aspects.	Should be able to illustrate the "do's" and "don'ts" of hospital behavior by cartooning. Should be able to list three ways to ensure patients' privacy. Should be able to discuss ethical behavior and how it relates to everyday etiquette.

OBSERVATION OF HEALTH CARE FACILITIES AND OCCUPATIONS

The purpose of the initial hospital visit is to give the class a general orientation to the hospital. If possible, a complete tour of the facility should be included.

The individually assigned hospital visits will allow the students the opportunity to gain a basic knowledge of several hospital occupations. Two sample forms have been developed for use as guides to obtaining information which has been found particularly valuable. Form A should be used for the initial exploratory visits. This form asks for such information as the following: duties, advantages, etc. (refer to attached sheets). Form B was devised as a follow-up for those students who desire further information on specific occupations. This form allows a more thorough survey of the occupation.

Separate instructions or guidelines for the teacher, student and hospital personnel appear on the following pages. They provide further information regarding the hospital visits.

OBSERVATION OF HEALTH CARE FACILITIES AND OCCUPATIONS

(For the Teacher)

Arrange field trip for class orientation to hospital.

Preparation for student field trips to hospital for observation include:

1. Selection of hospital departments to be made available for student observation.
2. Contacting supervisors of departments to advise of objectives. (Include copy of questionnaire students will be using.)
3. Breakdown of class into groups of two-to-three students per department. If possible, assign on one-to-one basis (student: employee) within department.
4. Planning number of days to be spent in hospital. A minimum of three days (one or two hours per day) should be allowed.
5. Completion of rotation schedule. Each group of students to spend one day in any one department.
6. Advising students of entire rotation schedule.
7. Having students refer to questionnaire in handbook. Discuss the points contained therein.
8. Advising students to take small notebook to hospital to record results of interview. Advise them to fill out interview questionnaires and record unfamiliar terminology.
9. Holding class discussions after each visit to hospital. These should be centered around individual experiences in the hospital interviewing procedures. Students will be spending one day in the hospital followed by one day in class for a minimum total of three days of each.
10. Collect the completed hospital interview questionnaires.

OBSERVATIONS OF HEALTH CARE FACILITIES AND OCCUPATIONS

(For Hospital Personnel)

Level of Student Preparation

Classroom lectures, discussions, and activities generally centered around several hospital departments.

Objectives

The student will obtain basic job descriptions of several hospital occupations.

Tool

Questionnaire

Method

Oral interview, preferably one-to-one ratio - employee: student.

Implementation

Assignment of two-to-three students to previously selected departments. Minimum of three days (2 hours) to be spent in hospital, one day per department.

Attached is copy of questionnaire which each student will utilize for interviewing. Hospital personnel involved should be given a copy in order to be aware of what students expectations will be.

Hospital personnel should also be ready to give students a brief description of how entire department functions.

OBSERVATIONS OF HEALTH CARE FACILITIES AND OCCUPATIONS

(For the Student)

Hospital Interview Form

Classroom discussions and activities have centered around the hospital and the various departments within it. As you have discovered, these departments all work together toward one goal--helping the hospitalized patient to become well again.

At this point you are ready to go into several different hospital departments to find out a little about how they work to reach this goal. You will want to know some of the job titles held by persons working in the various departments and some of the duties performed. What makes a certain person like a certain job? What makes him feel proud of what he is doing? What are some of the advantages or disadvantages of the job?

Obtaining such information will help you in making decisions about your future career. And, of course, such decision-making on your part is one of the important things that this program is all about.

In your Student Handbook, you will find a hospital interview questionnaire designed to help you obtain information for hospital workers about their jobs.

When you go to the hospital departments, take along a little notebook to jot down notes concerning your impressions. Complete the questionnaire.

As soon as possible after a visit to the hospital, individual accounts will be discussed in the classroom. Your notes will come in handy to help you take part in the discussions.

Turn in your completed questionnaire to the teacher.

HOSPITAL INTERVIEW QUESTIONNAIRE

(A)

JOB TITLE

DUTIES AND RESPONSIBILITIES

PERSONALITY OR CHARACTER REQUIREMENTS

ADVANTAGES (example - direct contact with people)

DISADVANTAGES (example - too much standing, night work only,
danger of personal harm, e.g., x-rays.)

MOST SATISFYING OR EXCITING EXPERIENCE ON THE JOB

IMPRESSION OF THE JOB

NEW WORDS

QUESTIONS, COMMENTS, OR INTERESTING EXPERIENCES

HOSPITAL INTERVIEW QUESTIONNAIRE

(B)

JOB TITLE

DUTIES AND RESPONSIBILITIES

HOURS AND SALARY RANGE

EDUCATIONAL REQUIREMENTS

OPPORTUNITIES FOR ADVANCEMENT

ENTRY LEVEL JOBS

RECOMMENDATION FOR PREPARATION

RELATED JOB OPPORTUNITIES

REFERENCES FOR FURTHER INFORMATION

OBSERVATION OF HEALTH CARE FACILITIES AND OCCUPATIONS

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Accompany class to hospital for general orientation visit.	Field trip to hospital for orientation.	Should be able to name several hospital departments, and list the personnel in each.
Brief student observation.	Assigned to various hospital departments for observation.	
Explain hospital interview forms to students.	Interview hospital personnel using the form provided.	
Give guidelines, describing student experience, to hospital personnel.	Give oral reports in class about his hospital experiences.	
Accompany student on field trips and monitor their experiences.		
Have students give oral reports on the departments visited.		
Have students keep a record of unfamiliar words or terms heard in hospital and then bring the list to class.	Keep a record of unfamiliar words or terms heard; bring the list to class.	

OBSERVATION OF HEALTH CARE FACILITIES

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UCLA Allied Health Professions Projects, Nursing Units,*

- (a) "Introduction to Ethics in The Healing Arts," Programmed material designed to introduce concept of ethical behavior to beginning hospital workers.
- (b) "The Health Worker and the Law," Programmed material designed to introduce medico-legal responsibilities to the beginning health worker.

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MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 2: Evaluation of Health Information

PURPOSE

To help the student develop criteria for evaluating health information.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 2: Evaluation of Health Information

Objectives

1. The student should be able to compare and contrast the basis for folk practices and the basis for scientific medical practices.
2. The student should be able to discuss the role and practice of folk medicine today.
3. The student should be able to discuss the reasons why the consumer will often resort to quack treatment or folk practices instead of utilizing reliable medical care.
4. The student should be able to state the possible consequences of utilizing a quack treatment or folk remedy.
5. The student should develop and use criteria for evaluating health information.
6. The student should be able to list and use sources of reliable medical information.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 2: Evaluation of Health Information

PROCEDURE

This is a classroom unit of one and one-half weeks, with assignments in current newspapers and periodicals. The unit is divided into two sections: Folk Medicine and Quackery. These are distinguished from each other by the fact that Folk Medicine is sincere and contains much of value while Quackery is essentially dishonest. Both, however are contrasted to modern scientific medical practice.

Begin with the section on Folk Medicine in which current folk beliefs are analyzed according to popular explanations in contrast to present medical knowledge. The instructor can then discuss the scientific method as a foundation of modern medicine.

Understanding the pragmatic and mystical basis of folk medicine will help the student to develop criteria for evaluating health information.

This is followed by the section on Quackery which features FDA fact sheets and the film "Once Upon A Time."

THE HEALTH CARE SYSTEM

Evaluation of Health Information

Folk Medicine

Content Outline

- I. The Development of Folk Medicine
 - A. All through the history of man, the sick man never doubted that he was sick.
 - B. Illness has always been one of man's greatest earthly worries; it causes pain and despair and it also raises the specter of death.
 - C. The concept of disease as a biological process is relatively young.
 - D. Disease has been interpreted in many different ways:
 1. Perceptions of the environment vary from culture to culture.
 2. Differing perceptions allow for the development of the diversity of beliefs we encounter in other societies.
 3. Acceptance of obviously false beliefs implies a different perceptual base for drawing conclusions, not a lack of reasoning.
 - E. Primitive man saw his world as a magical one.
 1. He felt surrounded by a hostile Nature - invested with mysterious forces.
 2. He had to observe a complicated system of rules and rites to protect himself from evil forces that threatened life and health.
 3. Illness meant that his observances had failed and a stronger power was in command.
 4. Consistent with a magical view of the world: since the disease was thought to be caused by magic, the cure was sought.
 - F. Treatment is always applied in terms of the cause - effect relationship as perceived by the belief system.
 1. Drugs benefit people because of chemical interaction with the body, but a culture with a magical belief system attributes the reaction of the drug to the ritual performed.
 2. Some health practices of other cultures, in light of our scientific knowledge, are recognized to spread disease rather than cure it. This results from reasoned application of their particular belief system.

Example: a Peruvian mountain village people believe that foods and parts of the body can be categorized as hot and cold (regardless of actual temperature). Certain illnesses demand only 'hot' foods, others only 'cold.' Boiled water is referred to as cooked water and is thought to be bad for stomach trouble - because it is no longer 'cold.'

When an epidemic of typhoid broke out, the government could not persuade these people to boil their water.

- G. Many health practices spread to distant parts of the world through travel, migration, exploration, wars, and conquests.

II. Beginning of Folk Lore

- A. Man's effort to understand the world and explain what he saw, heard, and felt.
- B. Need to satisfy natural curiosity.
- C. Need for security against perils.
- D. Need for success in procuring food and shelter.
- E. Need to find relief from illness and injury.

III. Folk Practitioners

- A. The sick man's need for help caused the appearance of primitive doctors.
- B. Religion and medicine were closely allied. The earliest physicians were priests and many were magicians as well.
- C. There was no division into physical and mental diseases; sickness was all mental in the sense that primitive man used the word spiritual or spiritistic.

The functioning of African witch doctors is a typical example of the primitive system in action. It is a highly controlled craft with an apprenticeship that may be as long as 20, 30, or 40 years, after which the individual is free to practice.

- D. Two main categories of practitioners have been recognized in traditional systems.
 - 1. The diviners or diagnosticians--those who determine causes. Often held in the highest esteem because of their special knowledge of the supernatural aspects of disease and misfortune.
 - 2. The healers--those who carry out treatment. Healers such as the Navaho "singer" performed their healing function through a formal ritual. (The Navaho word for medicine man is translated as singer.) The African witchdoctor is also bound by special rites.

- a. The magical gift of healing believed to be inherited.
- b. Powers were used to drive evil spirits out of the body rather than to bring them into the victim's body. Basic difference between a witch and a witch doctor--the former does evil, the latter does good.
- c. Different treatments used for patients thought to be bewitched. Evil spirit has to be driven out of sufferer and transferred to another animal. Treatment based on symptoms.
- d. Most "doctors" do not accept a fee until their patients are considered cured.
- e. Many of the practices are concerned with preventive remedies, especially regarding the new born.

(1) Many tribes believe the fontanelle is the weakest spot in the baby's body and that illness and evil enter this way.

(2) Charms are often utilized as preventive medicines.

IV. The Practice of Folk Medicine Changed to Scientific Medicine

- A. Primitive medicine is rational and consistent for a magical and supernatural world.
- B. A background of folk lore and trial-and-error practices over the years produced some effective methods of treatment even though knowledge of causative agents was lacking, i.e., the list of effective drugs which originated in folk medicine is quite impressive: opium, quinine, cocoa, mescaline, curare, and many laxatives.
- C. The elements of primitive medicine consisted of the mystical, the magical, and the empirical.
- D. Beginning with the ancient Greek period, the emphasis was primarily on empirical evidence.
- E. Rational systems of medicine developed which attempted to interpret the nature of health and disease based on observation and experiences - excluding mythology and the mystical.
- F. The scientific approach demands that every scientific theory be subject to systematic question and attack.
 - 1. Science is concerned with multiplying our ways of looking at things and broadening our perspectives.
 - 2. The critical examination and testing of facts is a continual procedure.

- G. In spite of the development of scientific medicine, religious and magical medicine never disappeared.
- H. At all times the three systems can be found together, sometimes in peaceful competition, sometimes in open conflict.
- I. Folk remedies and beliefs persist because they are not examined critically.
 - 1. Not restricted by the severe controls placed on scientific medicine.
 - 2. Often fulfill emotional needs.
- J. People turn to folk practitioners for a variety of reasons:
 - 1. Respect for tradition
 - 2. The appeal of a simple solution
 - 3. Inexpensive treatment
 - 4. Sympathy, warmth, and personal attention given by folk healer.
- K. Many dispensers of folk medicine exist in our society today.
 - 1. The druggist who dispenses advice with his pills.
 - 2. Neighbor and grandmother, each with favorite remedies.
 - 3. Faith healers.
 - 4. Advertising agencies, which persuade the public to buy various drugs.
- L. As long as medicine has not reached its goal of eradicating disease, there will always be patients hoping for a miracle, who will seek help from other sources.

THE HEALTH CARE SYSTEM

Evaluation of Health Information Folk Medicine

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Classroom demonstration of how to analyze a folk belief ¹	Record on worksheet (student manual) folk beliefs from home and community according to directions.	The student should be able to state a folk belief, describe the cure, and state folk reasoning for cure.
Discuss folk beliefs and practices brought in by students using the same format as in the demonstration.	Analyze through class discussion the scientific validity of the folk beliefs brought from home.	The student should be able to compare the basis for folk practices with the scientific method.
Compile list of folk beliefs brought to class.		
If needed, additional folk beliefs available in Bauer's <u>Potions, Remedies, & Old Wives Tales</u> , pp. 294-306.		
1. Supplemental topics that can be introduced during class discussion or used for homework:		
a. Germ theory of disease.		
b. Basic antiseptic procedures.		
c. Theory of inheritance of acquired characteristics.		
¹ Caution: Instructor should be aware that many of these practices may still be meaningful to family members. Care should be taken not to make fun of these beliefs.		

EVALUATION OF HEALTH INFORMATION

Folk Medicine

Analysis of Folk Belief

Class Demonstration: How to Analyze a Folk Belief or Practice.

The following will be used as examples:

I. Warts

A. The Folk Belief or Practice

1. Basis for the belief.

Observation of wart-like appearance of toad's skin. The belief may have been based on the primitive theory "like produces like."

2. Scientific validity of the belief.

Actual Cause: the cause of warts is presently thought to be produced by a filterable virus.

The toad's parotid gland secretes a substance that is highly irritating when it comes in contact with an open sore. But nothing is ever mentioned about persons with warts who have never touched a frog or toad or been within miles of one.

B. The Cure

1. The folk cure and basis for the cure.

There are many methods, all based on "charming" them away: i.e., rub the wart with a piece of stolen meat or a bean; then bury the meat or bean. As the substance is absorbed into the earth, the wart will be absorbed back into the skin.

Possible basis for these cures: observation that warts often disappear as mysteriously as they came.

2. The scientific cure and basis for the cure.

Use of electric needle to destroy the blood supply of warts makes them fall off. Also Cryotherapy (dry ice) is used as well as surgery for larger ones.

II. Tuberculosis

A. The Folk Belief or Practice

Tuberculosis is inherited.

1. Basis for belief

Observation that frequently several members of the same family had T.B.; T.B. seemed to run in families.

2. Scientific validity of the belief.

- a. T.B. caused by bacteria.
- b. T.B. is a communicable disease - close contact among members of a family allow easier spread of disease.
- c. T.B. is an acquired disease which is preventable. Acquired conditions are not inherited: i.e., if a man loses his leg because of a youthful accident, his children will not be born with one leg.

III. Hiccough Superstitions

A. The Folk Cure of Hiccoughs

Hundreds of remedies have been suggested over the ages - only a few have been found to have scientific validity, for example:

1. Various folk cures and their effectiveness

a. Two remedies used by Orientals:

Drink nine swallows of water without taking a breath.

Press a special spot at the base of the neck.

These practices produce pressure on the phrenic nerve, which relieves the impulse to hiccough.

b. Blow into an ordinary paper bag held close to the mouth and breath in and out of it.

The O_2 in the bag is quickly used up and an accumulation of CO_2 results. The increased CO_2 in the lungs stimulates normal breathing reflexes and stops hiccoughs.

FOLK MEDICINE

Homework Assignment

Discuss folk beliefs or practices with your parents, grandparents, neighbors, etc.

List on the attached worksheet one or two folk beliefs or practices which were mentioned in the discussion.

- Explain:
- 1) the belief or practice
 - 2) the cure or remedy used for the condition
 - 3) the reason the cure is supposed to work

- Example: A. Folk Belief or Practice

Curing of warts. There are many methods for getting rid of warts; the following are two examples:

- B. Cure or Remedy

1. Place a fresh slice of potato on the wart; leave it on the wart for three days until the potato turns black. This will remove the wart.

OR:

2. Rub a piece of stolen meat or beans on the wart. Then bury the meat or beans.

- C. Reason the cure works according to folk belief:

1. The potato draws out poison.
2. As the meat or bean is absorbed into the earth, the wart is absorbed back into the skin.

Find examples of cures and remedies for the following:

Warts, Headaches, Colds, Corns and Bunions, Growing Hair, Removing Hair, Heart Trouble, Weight Loss, Weight Gain, Backache, Rheumatism, Stomach Ache, Constipation, Fever, Hiccoughs, Acne, Toothache, etc.

References: Bauer, W. W. Potions, Remedies and Old Wives Tales. New York: Doubleday, 1969.
Jarvis, D. C. Folk Medicine. Fawcett, 1965.

Evaluation of Health Information

Folk Medicine

WORKSHEET

Folk Beliefs and Practices

A. Folk Belief or Practice

B. Cure or Remedy

C. Reason the Cure Works According to Folk Belief

EVALUATION OF HEALTH INFORMATION
FOLK MEDICINE

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Instructor will ask students to select various advertisements for class discussion using excerpts from the New York Amsterdam News, (see attached) or any other source.	Select advertisements for class discussion and analysis.	Should be able to name three types of folk practitioners still functioning today.
Supplement classroom activity with homework assignment.	Do homework assignment on community folk practitioners.	Should be able to give three possible reasons for people turning to medical advice from folk practitioners, rather than to legitimate sources.
Instructor will review homework assignment in class and summarize role of folk practitioner in today's society (see content).	Student will bring homework assignment to class. Discussion, review, summary of folk medicine.	Should be able to discuss the role and practice of folk medicine today.

EVALUATION OF HEALTH INFORMATION

FOLK MEDICINE

Teacher Activity

Newspaper advertisements of spiritual healers, herbalists, love potions, etc.

Instructors will distribute copies of the newspapers to the students. Students will select advertisements for class discussion.

Discussion Questions:

1. Have you seen ads like this before? If so, where?
2. Are reputable private doctors or hospitals allowed to advertise? Why not?
3. Are there any limits to the effectiveness or scope of the claims being advertized?
4. Why would people turn to folk practitioners like these instead of to legitimate sources of help?

Suggest that students bring in additional advertisements from the media.

CLASSIFIED ADVERTISEMENTS

SPIRITUALISTS

SPIRITUALISTS

SPIRITUALISTS

SPIRITUALISTS

SPIRITUALISTS

DON'T GIVE UP !!

GUARANTEED RESULTS IN 24 HOURS

THE MIRACLES OF REV. JAMES

62 E. 123rd St. (Bet Madison & Park Aves.)

Hours: 2 p.m. to 8 p.m.

Phone — 348-0924

THIS SOUTHERN BORN Spiritualist who Brings TO YOU the solutions to the mysteries of the DEEP SOUTH, seeks to help many thousands of people who have been CROSSED, HAVE SPELLS, CAN'T HOLD MONEY, WANT LUCK, WANT THEIR LOVED ONES BACK, WANT TO STOP NATURE PROBLEMS or WANT TO GET RID OF STRANGE SICKNESS. If you are seeking a sure-fire man to do for you the things that are needed or wish to gain FINANCIAL AID or PEACE, LOVE and PROSPERITY in the home, you need to see this man of GOD today! HE TELLS YOU ALL BEFORE YOU UTTER A WORD. He can bring in the SPIRIT OF RELEASE and CONTROL your every thought and dealing. ARE YOU SUFFERING FROM ILLNESS OR DISEASE THAT YOU CANNOT CURE? There is a doctor of all doctors. This Doctor is GOD. THOUSANDS OF PEOPLE are amazed at the results shown by Rev. James. When YOUR CASE SEEMS HOPELESS, THERE IS A REMEDY FOR YOU. Read James, Chapter 3, verses 13-16. Then come to see Rev. James as many others do from far and near. YOU'RE BOUND TO BE SATISFIED!!

SATISFACTION DOUBLY GUARANTEED

(One visit is all you need)

Rev. James works his power to SATISFY each and everyone. He reveals to you all of the hidden secrets, evil eyes and lurking dangers that may harm you. If you really want something done about the matter... HERE IS THE MAN WHO WILL DO IT FOR YOU IN A HURRY. DON'T TELL HIM LET HIM TELL YOU. See him in the afternoon. BE HAPPY AT NIGHT.

THIS MAN DOES WHAT OTHERS CLAIM TO DO!!!

BISHOP J. P. MOODY FI 8-0299.

LET ME PROVE TO YOU THAT I CAN CHANGE YOUR PROBLEMS, IN 24 HOURS.

Look what has been done. In my research I have come up with a secret mystery beyond all mysteries.

Great workers of today don't understand it. No person can stop it. And I have combined this secret with the old method you will find below.

Now I have the greatest combination the world has ever known. Beyond the Wisdom of King Solomon.

I have combined seven of the ancient world's greatest methods all in one and three services in one. A combination from India, Africa, Egypt, Old Babylon, Haiti, secret mystery of Jesus. With deep South Mystery, all in one. There is no other method like it anywhere. 12 times stronger, better, and faster than any other method. Never before has this been done. It makes no difference what you have failed in or who has failed you. This has given perfect results, where others have failed. It is really amazing, positive, exciting and thrilling. You will be amazed at the results you will get. Bring back loved ones, quick money, healing. Remove crossed conditions, stop enemies at once. In the past three weeks, three of my clients have gotten married, 8 have bought homes, three have purchased new cars and you don't have to live in poverty and despair.

Bishop Moody is not only a worker, but a teacher, and a teacher must know the work in this big method. I can only accommodate a certain amount. So see me today. You will get quick results.

ALSO DIVINE CLASSES

To each person who enrolls now, will receive free a \$300 light altar. And will get a free message each week. And one surprise gift each week. You will know how to do work, in one lesson.

Be sure to ask me to explain about the whole works.

Hours From 2 P.M. to 8

YES HE IS HERE!!

BACK FROM THE AFRAGANIC STANDS
(between Egypt and the Nile river)

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SEES ALL

TELLS

People have been searching, calling and wondering. Asking who Prophet Bowen is the only living man with the REAL African Queens Human Hand. The hand of Faith and Power. He can you in matters of LOVE, MONEY WORRIES, EMPLOYMENT SPECIAL DESIRES.

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RESULTS POSITIVELY GUARANTEED within 24 HO

Call him right now! Phone

864-4062, 41 Convent Ave. Apt. 5F near 130th

Hours 9:00 A.M. To 1 P.M. Evenings 5:00 to 9:00

LOOK

unto me, and be ye saved, all the ends of the earth for I am God and there is none else.

Isaiah 45:22

SEES ALL — TELLS ALL — KNOWS ALL — DOES ALL. I AM THAT I AM WORLD'S GREATEST SPIRITUALIST.

BISHOP J. H. TOMPKINS
EXPERT

I AM NEVER FAIL — ADVICE FREE. Once you exp. No case too hard. With God all things are possible. For God so loved the world that he gave his own begotten son that whosoever believeth in him should not perish but have everlasting life.

John 3:16

Get help now if worried over love, money, job, health, evil & enemies. Do you want happiness, success, prosperity, then come now. Do what you want done. All work absolutely guaranteed. Come unto me all ye that labor & are heavy laden & I will give you rest.

Matt 11:28

DON'T WAIT! COME NOW! COME OR CALL for app'l.

346-2062

284 HOPKINS AVE.

1 ft up apt 3 bet Dean & Bergen Sts. Bklyn. N.Y. HRS: 8:30 a.m. until Open Sundays.

YOUR PROBLEMS — an end today. I have good news for you. Don't wait, see me now!

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WHY WORRY.

I GUARANTEE!

I will succeed others failed. Is loved one straying? you living under a condition? Is your unhappy? If so, your appointment see Rev. Wallace. Call Monument 6-daily.

except Sat. & Sun. 1 to 6:30 p.m. No tions asked, I tell y charge if I fail, 271 W. 125 ST, RM Come today be hap tomorrow.

RESULTS IN 9 HO

LaVerne

Why should it take long Georgia woman does this hurry. Don't tell her, let you, strange sickness & conditions removed overnight and money troubles eliminated. Remove problems. She will bring prosperity. Remove all evil you. This woman will others have tried to do. I will convince you. S. Doubly guaranteed.

Hours from 11 AM to 5 PM

MADAME LAYERS

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MY FRIEND, ASK Y

A QUESTION

WHY CAN'T I BE LIKE PEOPLE?

Something is always hap me. I'm all crossed up, bal sickness, evil spells, no bold money and no friends. love in my life and eve wrong.

YES, YOU CAN GET Y STRAIGHTENED OUT HAVE GUARANTEED DOING MY WORK

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e and only who guarantees 3 days no matter what your is is There is no pity for who know and don't come. If explain fully and advise refully. Open daily 9 a.m. m. 370 Kingston Ave. Bklyn. 774-7551

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N.Y. AMSTERDAM NEWS 5-30-70

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Who and when you should marry?
Who your friends and enemies are?
If the one you love loves you?
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How to win the one you love?
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Why you are so unlucky?
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Would you like to be lucky?

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Receive a free John the Conqueror luck piece with each reading

LET ME HELP YOU

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WOULD YOU LIKE TO KNOW?

About your husband? About your loved one? If the sick can be helped? Money problems? How to break bad habits? Worry problems? She will help you on all problems of life, love, marriage, business, health & happiness.

No problem is too great for this gifted lady. 1 visit will convince you. She was successful where others failed. All readings are private. Guaranteed satisfaction. Centrally located. She has God given power to heal the sick, reunite the separated.

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SATISFACTION DOUBLY GUARANTEED 57 (One visit is all you need) MADAM GINA

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68

JUST BACK FROM THE DEEP SOUTH WITH 30 DIFFERENT MYSTERIOUS ROOTS.

I selected the best roots that could be found in the South. And you know, I know what to do with them. I will tell you the secret. Results one day, regardless. Money remove crooked conditions. bring loved one back. Available for tea readings. Rev. L. Hayward. 293-5308. Hours 1 to 8 PM.

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THE GREAT DOC WONDER OF HAWKINSVILLE, GA.,

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Worried, troubled, sick? Be helped in your way home. I will tell you a and show you how and what to do. No burden is too hard. Call from 10 to 8 PM. Rev. Morris. 267-12 AVAILABLE FOR TEAS.

VOODOO WITCH DOCTOR

From Bklyn. 839 Franklin Ave. Bklyn. Open 9am-10pm 773-9190

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The one and only who guarantees help in 3 days no matter what your problems, or no charge. There is no pity for those who know and don't come. She will explain fully and advise you fully. Open daily 9 a.m. to 9 p.m. 147-10 Jamaica Ave. (cor Sugar Blvd.) 1 ft up Jam.

EVALUATION OF HEALTH INFORMATION

FOLK MEDICINE

Homework Assignment

Do any of the following practice in your neighborhood?

1. Practitioner
2. Healer
3. Herbalist
4. Diviner
5. Naturalist
6. Midwife

Look up these headings in the yellow pages of your telephone directory in order to determine if they can be found in your community.

Write down the name, address, telephone number, and other information given in the ad for at least THREE of these people. Bring to class.

FOLK MEDICINE

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QUACKERY

The quack of today does not have the virtue of sincerity and the belief in his own solutions that characterized the primitive medicine man. The quack knows he is a phony and cynically classifies the patient as a sucker.

He is not a healer because of calling or human concern but because he sees it as a way to make easy money. His goals are selfish ones; he has no real concern for the welfare of his client, who, because of the quack's treatment, may be denied effective medical help.

Since money is the goal, the quack will use all methods to appeal to the public. This often means using folk medicine remedies and making them seem "scientific" and part of today's medicine. Or, he will deny the usefulness of scientific medicine, claiming the old ways are best. He sells his wares by playing on fear and ignorance, using as his cover the mysterious qualities of many diseases.

How can the individual protect himself from becoming the victim of the quack? An educated consumer who can evaluate the content and source of medical information can protect himself, his family, and his friends.



fact sheet

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Consumer Protection and Environmental Health Service
Food and Drug Administration
Washington, D.C. 20204

QUACKERY

Many people concerned with health problems ask the Food and Drug Administration for information on some of the following points:

1. What is quackery?

The term "quackery" encompasses both people and products. The "health practitioner" who has a "miracle cure" but no medical training is a quack; the worthless drug or food supplement pushed in deceitful promotions is a quack product; the machine that has impressive knobs and dials, but does nothing except take money out of the pockets of the unsuspecting, is a quack device.

2. What kinds of quackery are there?

There are basically three types of quackery: worthless drugs and cosmetics; silly food fads and unnecessary food supplements; and useless medical devices. Their promoters' interest is not to protect or restore your health, but to separate you from your money.

Worthless drugs: These include "cures" for baldness among men, which is incurable; chemical "face peels" that promise new youth but may bring permanent disfigurement; "prompt relief" from colitis through laxatives which can seriously worsen this condition; drugs that "melt away" fat without dieting - when dieting is the only way known to medicine to reduce weight. Most cruel and dangerous of all are the "effective treatments" for diabetes and cancer. In diabetes, they can cause coma and death; in cancer, the patient is robbed of the one element that can save his life - valuable time during which really effective treatment could still be administered.

Food Fads: Contrary to what self-appointed "nutrition experts" say, American farm land is not "depleted;" chemical fertilizers and modern food processing do not deprive our food of its nutritive value. Americans are the best fed people in the world; diseases caused by dietary deficiencies have all but disappeared. Nutritional needs of older people are much like those of any other age group. The need for vitamin, mineral, or other food supplements can only be established by a physician.

Medical Devices: The electrocardiograph records the action of the heart; a special gauge shows the blood pressure; X-rays record abnormalities within the body. But there is no machine which can diagnose or treat different diseases by simply turning a knob or flashing lights; no apparatus can reduce excess weight by vibration; no glove or bracelet can "cure" arthritis with "electricity" or "uranium ore." Sometimes quackery even involves legitimate devices. It is practically impossible to get properly fitted eyeglasses or dentures by mail order, for example.

3. How can quackery be recognized?

Quackery follows certain well-defined patterns. If your answer is "yes" to any of the following questions, it is very likely that you are one of the thousands of people who are victimized by quacks each year.

Is the product or service offered a "secret remedy"?

Does the sponsor claim that he is battling the medical profession which is attempting to suppress his wonderful discovery?

Is the remedy sold from door to door, by a self-styled "health advisor," or promoted in lectures to the public, from town to town?

Is this "miracle" drug, device, or diet promoted in a sensational magazine, by a faith healers' group, or a crusading organization of laymen?

Does the promoter show you "testimonials" on the wonderful miracles his product or services have performed for others?

Is the product or service good for a vast variety of illnesses, real or fancied?

4. What can you do?

If you suspect that you are the victim of quackery, there are a number of things you can do:

See your physician or inform your county medical society.

Get in touch with the Food and Drug Administration, either at its District Office in your area, or in Washington, D.C.

Ask the Better Business Bureau about the reputation of the promoter.

If the drug or device was promoted through the mail, inform your local Post Office.

SOME QUESTIONS AND ANSWERS
ABOUT DIETARY SUPPLEMENTS

1. What are dietary supplements?

Dietary supplements are intended to supply one or more essential food nutrients to an individual's diet. The most familiar dietary supplements are multi-vitamin and vitamin-mineral preparations. These products are sold as tablets, capsules, pills, wafers, powders, or liquids.

2. Are "natural" vitamins (those found in foods) better than "synthetic" vitamins (vitamins manufactured in the laboratory)?

All vitamins are specific chemical compounds. They have the same composition and have the same effect on the body, whether they are produced synthetically in a laboratory or derived from natural sources.

3. Is it true that no one gets enough vitamins and minerals and therefore everyone needs to take dietary supplements?

Diseases caused by vitamin and mineral deficiencies are extremely rare in the United States. The Food and Drug Administration believes that the nutritional needs of most Americans can be satisfied by readily available foods, and that only persons with special medical needs require routine use of dietary supplements.

4. Does worn-out soil affect the nutritive value of foods produced on it?

The most serious effect of worn-out soil is reduction in the quantity of a crop it yields. There is a relationship between the nutrients of a crop and the elements of the soil in which it was grown, but the impact of this upon the total diet of the average American is insignificant. Modern methods of processing, preservation, and distribution enable Americans to enjoy, all year round, foods which were once seasonal. The constant availability of these foods more than offsets any effect upon human nutrition of normal variations of the food's nutrient content.

5. Will vitamin or mineral supplements give a person pep or a feeling of well-being?

Feeling poorly, lacking pep--these are just symptoms which may be caused by disease, by emotional stress, by loss of sleep, as well as by poor nutrition. If a deficiency of vitamins or minerals were the cause, then dietary supplements might reduce the symptoms and a feeling of well-being would be restored. Of course, it is extremely difficult for the average individual to accurately diagnose the cause of these symptoms. If the symptoms persist, he'd be wise to see a physician.

SOME QUESTIONS AND ANSWERS
ABOUT DIETARY SUPPLEMENTS

6. Can one take too many vitamins and minerals?

Vitamin-mineral products, when taken according to label directions, are not harmful. Normally, if a person takes more vitamins and minerals than he needs, the body passes them off. However, overdoses should be avoided.

7. Are fresh foods a better source of vitamins and minerals than processed foods?

In general, there is little difference between fresh and processed foods. Modern processing methods preserve vitamin and mineral values or restore them. For example, canned and frozen fruits and vegetables are quickly processed at their nutritional peak. Flour, bread, milk, and margarine are nutritionally improved with added vitamins and minerals.

8. What is the difference between "enriched" foods and "fortified" foods?

"Enriched" foods (chiefly those made from cereal grains) are nutritionally improved by replacing or restoring amounts of thiamine, riboflavin, niacin, and iron removed by processing. All four of these ingredients must be included if a product is labeled "enriched." Calcium and vitamin D are optional ingredients, and may be included or omitted at the discretion of the manufacturer. If included, they must be stated on the label.

The term "fortified" is applied to foods where one or more ingredients have been added to provide certain nutrients that may or may not be present naturally in the food. The addition of vitamin D to milk and iodine to table salt are examples.

9. Would your diet be better if it contained whole wheat and other dark breads rather than enriched white bread?

Nutrition research has shown that a diet containing white bread made with enriched flour has the same value as one containing whole grain bread.

10. Are certain types of labeling and advertising for vitamin and mineral preparations prohibited?

The Food and Drug Administration cooperates closely with the Federal Trade Commission in control over the claims made in labeling and advertising vitamin and mineral preparations. Manufacturers of these products, for example, cannot claim that they replace food, take the place of sleep or rest, ease tension, restore youth, grow hair, restore sexual powers, build muscles, curb appetites, or cure serious diseases.



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Consumer Protection and Environmental Health Service
Food and Drug Administration
Washington, D.C. 20204

SELF-MEDICATION

Self-medication is the use of a drug or drugs available without a prescription - often called over-the-counter or OTC drugs. These drugs are helpful in the treatment of simple conditions--such as headache or indigestion--that can be diagnosed by the average person. They can be used safely when directions supplied with the drugs are followed.

However, the chemicals in all drugs--even the most common over-the-counter preparations--do something to a function or a part of the body. If misused, if used in excessive dosages or for too long a period of time, they may be harmful. The use of these drugs to treat symptoms which persist or which recur with frequency may also be dangerous, because the symptoms may warn of a more serious illness requiring professional diagnosis and treatment.

Self-medication may also describe the use of a prescription drug other than as prescribed, or by someone for whom it was not prescribed.

America has been called "the over-medicated society." The health of Americans can be enhanced by the variety and abundance of drug remedies available. Good health is threatened, however, when drugs are used wrongly or excessively.

Drug Action and the Body's Reaction

At the same time a drug is acting on some function or part of the body, the human body is doing something to the drug. Normally, the body will limit the drug's duration of action and effectiveness and then excrete it. This normal function, called "detoxification," requires the proper performance of organs such as the liver, kidney, or lungs. If an individual cannot detoxify the drug--because his body is not reacting properly, because he has taken too much medication, or because of other complications--the drug's action may be much more prolonged and severe than desired.

Some drugs act by interfering with normal body functions, which must be restored to normal after the drug is stopped. If the misuse of drugs disturbs the delicate balance of the body's chemistry, the restoration of normal functions may be impeded.

Over-Use of Drugs

OTC drugs are safe in the recommended dosage, but may be extremely dangerous in large overdoses. For example, aspirin is seldom thought of as dangerous; we reach for it routinely to soothe headache and other pains. But there are many reports of poisonings of young children who swallow more aspirin than their little bodies can handle.

In adults, continued, excessive use of some pain-killing drugs has been found to cause severe and irreversible kidney damage. Some drugs for relief of stomach upsets can aggravate the condition by causing an imbalance in the body's secretion of enzymes while other indigestion remedies contain bromide which can accumulate to a toxic level in the blood, causing bromide poisoning.

Over-medication of symptoms, such as continued use of laxatives to relieve constipation, may mask the underlying cause. Constipation may be a warning of a condition that requires prompt and professional medical or surgical attention.

Combining Drugs

The combined effect of two or more drugs on the body can be very different from the action of each drug taken separately. Sometimes combining drugs can produce dangerous--even fatal--reactions. This is because each drug not only acts on the body, but may act upon and increase the effect of other drugs...a condition known as "potentiation." For example, aspirin potentiates (increases) the "blood-thinning" effect of an anti-coagulant. For that reason, a patient with heart disease who has been taking an anti-coagulant under his doctor's supervision, may risk the serious complication of hemorrhage if he uses aspirin whenever he gets a headache.

Patients who regularly take a prescription medication should seek and follow the doctor's advice in using OTC drugs. Pharmacists also know whether an OTC drug can be safely used in combination with the patient's prescription drug, or whether two or more OTC drugs can safely be taken in combination.

Alcohol is another substance that can potentiate the effect of a drug. Hypnotic drugs, such as sleeping pills, and antihistamines are examples of drugs that interact with alcohol producing potentially harmful results. Again, patients should seek professional guidance before combining alcohol with either prescription or OTC drugs.

The Role of Government

One of the Food and Drug Administration's consumer-protection responsibilities is to assure that drugs are safe and effective for their intended uses. Federal law requires that drugs be properly labeled, with adequate directions for use in a specified condition. Prescription drug labeling must include all the information required by the doctor to prescribe for his patient. The package given to the patient, however, may carry only simple instructions, such as "take 2 before bedtime."

The labeling of over-the-counter drugs--and this may include the label on the package as well as a leaflet inserted in the package--must provide all the directions for use needed by the average person. This includes the conditions under which the drug should not be taken. The label may advise, for example, that the drug should not be given to infants, very young children, or the elderly.

The Responsibility of the Individual

The hazards of self-medication result from carelessness, faulty self-diagnosis, and failure to heed the warnings and directions for use of the drug. The Food and Drug Administration enforces the law to protect you, but you can be your own best protection against harmful effects of self-medication. Follow these simple rules for your own safety:

- | | |
|--|--|
| Don't be casual about taking drugs. | Do read and follow directions for use. |
| Don't take drugs you don't need. | Do be cautious when using a drug for the first time. |
| Don't overbuy and keep drugs for long periods of time. | Do dispose of old prescription drugs and outdated OTC medications. |
| Don't combine drugs carelessly. | Do seek professional advice before combining drugs. |
| Don't continue taking OTC drugs if symptoms persist. | Do seek professional advice when symptoms persist or return. |
| Don't take prescription drugs not prescribed specifically for you. | Do get medical check-ups regularly. |



fact sheet

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Consumer Protection and Environmental Health Service
Food and Drug Administration
Washington, D.C. 20204

MEDICINES: PRESCRIPTION AND OVER-THE-COUNTER

To some people, the word "drug" means narcotics, or perhaps some other special kind of medicine. Actually, however, all medicines are "drugs" under the Federal Food, Drug, and Cosmetic Act.

Under the law, drugs are divided into two classes: prescription drugs and over-the-counter drugs. Here is a brief discussion of these two classes of drugs and some suggestions on what to do and what not to do in using them.

PRESCRIPTION DRUGS

When a drug can be used safely and effectively only under a physician's supervision, it can be sold only by prescription. It is a federal violation to sell such a drug without a prescription. Only medical doctors and dentists are licensed to prescribe drugs for human use, and only registered pharmacists may fill prescriptions. A prescription must be written by a physician or telephoned in directly by him.

Prescriptions are not meant to be passed around a family or traded with a neighbor. No one should take a drug prescribed for someone else, even if he thinks he has the same illness. An individual should not even take a drug prescribed for him during a previous illness without first checking with his physician. He may not have the same illness he had before, even though he thinks he has. The drug may have lost strength. Also, the organism that caused the disease may have developed resistance to the drug.

When taking any prescription drug, a patient needs to know:

- How often and when to take it;
- How much to take each time;
- When to check back with his physician on the drug's effects; and
- Any special instructions the physician has to give.

When the physician prescribes the drug, he will give his patient any necessary instructions. In the prescription itself he will also tell the pharmacist what to put on the label of the medicine. The patient should follow these instructions exactly. For example, it will not do to take a medicine after meals, if the doctor said to take it before meals. If the physician said to take the drug three times a day, he doesn't mean six times.

If the patient thinks his medicine is not doing what his physician intends, he should check with him promptly. The doctor may wish to change the dosage or to try another medicine.

(MORE)

OVER-THE-COUNTER DRUGS

Many drugs are safe and effective for most people if used according to instructions that can be put on a label. These drugs may be sold "over-the-counter," that is, without a prescription.

These over-the-counter drugs must have labeling that tells how to use them for specific conditions, and warnings on what to avoid. Important information is often included in the package circular, which is regarded as part of the labeling. All the labeling should be read and followed exactly. It is always a good idea to check the label directions each time a medicine is used.

Typical warnings on a medicine will tell:

. . . how to use it safely

Do not drive or operate machinery
while taking this medicine.

Do not apply to broken skin.
Do not exceed recommended dosage.

. . . when to stop taking it

Discontinue use if rapid pulse, dizziness,
or blurring of vision occurs.

WARNING

If pain persists for more than 10 days or redness
is present, or in conditions affecting children
under 12 years of age, consult a physician immedi-
ately.

Although over-the-counter drugs can be sold without prescription, this does not mean they should be bought and used indiscriminately. They should be used only for minor ailments that last a short while. The person who constantly doses himself with over-the-counter pills could be suffering from a serious disease. The drug he takes might do no more than relieve his symptoms. He might think he is getting better, when actually his ailment is growing and spreading.

No one should become a steady user of any drug except on his physician's advice.

Division of Consumer Relations
Bureau of Education and Voluntary
Compliance



fact sheet

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Consumer Protection and Environmental Health Service
Food and Drug Administration
Washington, D.C. 20204

SOME QUESTIONS AND ANSWERS ABOUT FOOD ADDITIVES

1. What are food additives?

Food additives are any substances added to foods to perform one or more specific functions.

2. Why do we use additives in our modern foods?

Man has added to his knowledge of food improvement and preservation for thousands of years. Without modern additives we would not have the quality and quantity of food now necessary to feed our Nation's citizens. Also, food preparation is moving rapidly from the home kitchen to the food "factory," and storage time is longer. Proper and safe additives are necessary to keep our foods safe, pure, and wholesome.

3. What do these additives do?

Enhance flavor. Examples are spices and natural and synthetic flavors.

Stabilize and thicken. Starch, pectin, gelatin, gum arabic, agar agar, and methyl cellulose are among those used.

Neutralize or alter acidity or alkalinity. Quality production of many types of baked goods, soft drinks, and confectionery requires this.

Prevent oxidation and spoilage. People have long used salt, sugar, vinegar, heat, freezing, smoke, and spices to prevent or delay food spoilage. Modern science has developed preservatives such as sodium and calcium propionate (produced naturally in Swiss cheese) to retard the growth of bread molds, and BHT (butylated hydroxytoluene) and BHA (butylated hydroxyanisole) to retard the oxidation that allows fats and fatty foods to become rancid.

Other additives retain moisture, add nutrients such as vitamins and minerals, mature and bleach flour, increase volume and smoothness, and act as propellants for food in pressurized cans.

Additives are also used for hardening, drying, coloring, leavening, anti-foaming, non-caloric sweetening, disease prevention, creaming, firming, anti-sticking, whipping, and sterilizing.

4. Are these additives safe?

The Food and Drug Administration (FDA) is charged with insuring that our foods are safe, pure, wholesome, and made under sanitary conditions. FDA is responsible for establishing rigid safety standards for additives in foods. Not only must the additive be proved safe in normal use, but also safe when small amounts are consumed over a lifetime.

Any additive could be harmful in some amount or under some circumstances. This would be true, for example, of such common additives as sugar and salt, which are quite safe in ordinary amounts for healthy people. The consumer should be interested in the safety of the amount allowed; he need not be concerned about some larger amount that FDA does not allow.

Many persons question modern additives because the additives do not yet have simple, common names, and because they are not added in home cooking. Consumers should learn not to be alarmed by the word "chemical."

Proteins, fats, and carbohydrates are complex chemical compounds. We casually use in our kitchens, salt, baking powder, vinegar, soda, cornstarch, cream of tartar, and water without thinking that we are using sodium chloride, calcium acid phosphate, acetic acid, sodium acid carbonate, amylum, potassium bitartrate, and hydrogen oxide.

5. How much of these additives are allowed in our foods?

The amounts vary, depending on the type of food, the additive's safety, and the least amount needed to accomplish the desired result. FDA's modern laboratory equipment can establish tolerances in minute amounts and check these amounts with a degree of accuracy unknown just a few years ago. For example:

<u>Additive</u>	<u>Amount Allowed</u>
Sodium or calcium propionate	3/100 of 1 oz. for each 1 lb. loaf of bread
BHT or BHA	50 parts per million in dry cereal*

*FDA scientists estimate that if BHT or BHA were used at the maximum level in all foods in which it is authorized, the maximum daily intake would be about 4 parts per million (ppm). Actual usage is substantially less.

How much is 4 parts per million?

4 ppm equals 128/1000 of 1 oz. for each ton of food, or
4 ppm of all the food a person might eat in a normal lifetime
would equal about four mouthfuls.

SOME QUESTIONS AND ANSWERS ABOUT MEDICINES

1. Are medicines bought over-the-counter as good as the ones a doctor prescribes?

Both prescription and over-the-counter medicines must meet high standards of strength, quality, and purity. The present provisions of the food, drug, and cosmetic laws set different standards for effectiveness of drugs, depending on the date they were first introduced to the market. In general, however, all drugs must be effective to treat the conditions the labeling claims they can. Over-the-counter drugs should be used only for minor illnesses that last a short time. A physician should be consulted about any major illness or even a seemingly minor one that persists.

2. Can consumers trust the claims made for medicines in newspapers and on radio and television?

The Food and Drug Administration is responsible for (1) the safety and effectiveness of drugs and (2) the truth of advertising claims made for prescription drugs, which are advertised only to physicians and other medical practitioners. The Federal Trade Commission is concerned with the truth of claims made in advertising over-the-counter medicines in newspapers and on radio and television. The Federal Communications Commission also exercises some control over radio and television commercials. Since each of the three agencies operates under a different act of Congress, there are differences in enforcement philosophy and methods. In general, however, all agencies require that advertising material be related to labeling claims and be reasonably truthful. If an individual has any questions about the effectiveness of any over-the-counter medicine as claimed in an advertisement, he should consult his physician. If he believes the advertising of any such drug is false or misleading, he should contact the Federal Trade Commission.

3. Are pills for weight reduction safe and effective?

No drug will "melt away" fat. Weight control--unless complicated by illness--is a matter of reducing the intake of calories below the number of calories used up by the body. Vitamin pills are not effective in weight reduction and, at best, only contribute to good nutrition if the diet is being drastically reduced. Some drugs--in relatively large doses--help curb the appetite. A physician should prescribe them and carefully supervise their use. A person who needs to lose more than a few pounds should see a physician and follow his instructions.

4. Will drugs deteriorate if stored a long time?

Many drugs deteriorate and may become ineffective or even dangerous when stored a long time. A person should date all over-the-counter drugs when he buys them. The pharmacist will date prescription drugs. Some medicines bear an expiration date and should be discarded when that date is reached. In general, if a person is in doubt about the usability or freshness of any drug, he should throw it away.

5. How much of any one medicine should a person buy at one time?

Medicines and health supplies should be bought in realistic quantities. In the case of prescription medicines, the physician will decide how much should be bought at one time. In buying over-the-counter drugs, some considerations should be: How often is the product used? How much is used each time? How many persons in the same household use the product?

6. What do the symbols U.S.P. or N.F. signify when they appear on a drug label?

U.S.P. stands for the United States Pharmacopeia, and N.F. for the National Formulary. These books contain the official standards for strength and purity for various drugs recognized by the U.S.P. and N.F. conventions. These conventions are made up of experts in the fields of medicine, pharmacology, and other sciences, and are held every 5 years to determine what drugs should be recognized. The Federal Food, Drug, and Cosmetic Act recognizes the standards of the U.S.P. and the N.F., and these symbols on a drug label indicate that the drug complies with all provisions of the Pharmacopeia or Formulary.

7. Does the FDA have control over drug prices?

No. There is no federal regulation of drug prices.

8. Can I use someone else's prescription medicine if I have the same symptoms?

No. Doctors prescribe medicine according to individual needs. Certain medicines are available only by prescription because expert, professional judgment is necessary to determine when they should be used.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Film - "Once Upon a Time"
Legal Aspects of Quackery

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
1. Film Showing: "Once Upon A Time"--episode of Hawaii Five-0 series dealing with a quackery case.	View film "Once Upon A Time."	Should be able to state which agencies investigate charges of quackery and what action can be taken.
2. Distribution of reading material on Ruth Drown (refer to content outline and attached page). Interested student can read entire story - in <u>The Medical Messiahs</u> , by James H. Young. (Chapter 12, "The Gadget Room.")	Read material on Ruth Drown and if interested read at home the entire story, "The Gadget Room," Chapter 12, in <u>The Medical Messiahs</u> , by James H. Young.	Should be able to state how an individual may report an incident which he feels involves questionable practices.
3. Discuss legal aspects of quackery (refer to content outline).	Participate in discussion on the legal aspects of quackery.	Should be able to develop criteria for evaluating consumer health information.
4. Guided discussion of film and analysis of the actual case leading to the classroom development of criteria to be used for evaluating consumer health information. (Each student should have a copy of the criteria developed.) A sample list of criteria is attached. Criteria will be used in a later activity.	Participate in developing criteria to be used by any consumer in evaluating health information.	

EVALUATION OF HEALTH INFORMATION

QUACKERY

Student Activity: The Ruth Drown Case

The Hawaiian Eye film, "Once Upon a Time," was based on the following true story:

Ruth B. Drown, a chiropractor practicing in California claimed to have invented machines that could diagnose and cure various illnesses by analyzing blood counts and temperatures. All afflictions, including cancer, were to be treated and cured by her machines once the correct "wave length" was diagnosed.

Ruth Drown declared that her device, utilizing a blood spot sample, would broadcast "healing waves to the patient from great distances."

In 1951, she was brought to trial as a result of the death of a woman suffering from cancer who had been undergoing the Drown treatment. The court found her guilty and she was fined \$1,000.00, the judge ruling that false claims were being attributed to her machine, "The Drown Radio Therapeutic Instrument."

The conviction only prevented interstate distribution of her equipment. Ruth Drown and her chiropractor daughter continued to treat patients from a Hollywood office. Both they and a woman employee of theirs were subsequently indicted on grand theft charges, in 1963, for diagnosing and treating patients for non-existing diseases with worthless electric instruments.

Ruth Drown died in 1965, but her daughter and the employee were convicted. The judge, in his ruling, affirmed that they knew about the inability of the machines to diagnose or effect cures and that their actions were dishonest and dangerous.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Student Activity

Sample list of criteria to be developed by class.

Promoter of Product

Title

Background

Name of Product

Components

Medical conditions for which product is used

Description of how product is used

Who makes the diagnosis of the medical condition?

Who determines if the patient is "cured"?

How does the patient get the product?
(e.g., drugstore, through the mail, etc.)

What is the accepted medical treatment for this condition?

Compare the accepted treatment with the proposed treatment.

Could use of the product be potentially harmful to the patient?

EVALUATION OF HEALTH INFORMATION

Consumer Education

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Student selects an area of interest for investigation. Following is suggested list of topics. Any <u>Consumers Reports</u> or magazines available in school library may also be used. NOTE: Students may require assistance in interpreting some articles. Guide classroom presentation.	Following is a suggested list of topics to be explored. Select an area of interest. (The FDA fact sheets are in the student manual.) Information acquired from these articles will then be presented to the class in a short discussion - e.g., 2 to 5 minutes. Present your report to the class.	Should be able to state the major problems and fallacies commonly associated with the area he has investigated, e.g., the use of different brands of aspirin.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Topics and Resource Material

A. Major Types of Quackery (includes examples of each)

Source: Food and Drug Administration Fact Sheet: "Quackery"

B. Techniques Used by Advertisers in Selling a Product (two students)

Source: 1. Vance Packard, The Hidden Persuaders, available in paperback or in the library. Select any chapter of interest.

2. "Consumer Motivation," Consumer Reports, June 1957, Pages 299-301.

Evaluation of Popular Products--Discuss the major points in the appropriate article.

<u>PRODUCTS</u>	<u>SOURCE</u>	<u>PAGES</u>
C. Aspirin	<u>The Medicine Show</u> , Consumers Union	12-15
D. Cold Remedies	<u>The Medicine Show</u> , Consumers Union	16-22
E. Cough Remedies	<u>The Medicine Show</u> , Consumers Union	23-26
F. Vitamins	<u>The Medicine Show</u> , Consumers Union	90-92
G. Acne	<u>The Medicine Show</u> , Consumers Union	121-127
H. Food Fads	<u>The Medicine Show</u> , Consumers Union	84-89
I. Deodorants	<u>The Medicine Show</u> , Consumers Union	161-167
J. Mouth Odor Fallacy	<u>The Medicine Show</u> , Consumers Union	167-169
K. Gargles for Sore Throats	<u>The Medicine Show</u> , Consumers Union	27-29
L. Indigestion	<u>The Medicine Show</u> , Consumers Union	43-45
M. Problems of Self Medication	<u>The Medicine Show</u> , Consumers Union Sheet: "Self Medication"	

CONSUMER EDUCATION
TOPICS & RESOURCE MATERIAL

(continued)

PRODUCTS

SOURCE

- Discuss the problems which can arise from self-medication, i.e., the use of a drug without a prescription for an ailment which you yourself have diagnosed.
- N. Evaluation of a Commercial Slogan The New Republic, August 15, 1970.
Read the article on the Excedrin commercial. What is the major fallacy with the commercial slogan, "tests conducted at a famous hospital have proven two Excedrin contain twice as much pain reliever as four of the best selling aspirin."
- O. What are the major problems with the existing legal controls against quackery? Chapter 12, "The Outright Quacks," The Medicine Show, Consumers Union
- P. Medicines: Prescription and Over the Counter Food and Drug Administration Fact Sheet
- Q. "Some Questions and Answers about Dietary Supplements" Food and Drug Administration Fact Sheet
- R. "Some Questions and Answers about Food Additives" Food and Drug Administration Fact Sheet
- S. "Some Questions and Answers about Medicines" Food and Drug Administration Fact Sheet
- T. Legal Controls Against Quackery
Two students split assignment. What agencies are involved in consumer protection? Do you think the consumer is adequately protected? Why or why not.

AUGUST 15, 1970

THE NEW REPUBLIC

Excedrin's Headache

For the past year David Janssen, remembered as "The Fugitive's" innocent doctor on the run, has been appearing in a televised Excedrin commercial in which he says "tests conducted at a famous hospital" have proven "two Excedrin contain twice as much pain reliever as four of the best selling aspirin." City buses carry Excedrin ads headlined "Aspirin isn't best any more"; full-page newspaper ads announce, "For 70 years, aspirin has been good enough. But now it's time to try Excedrin." Last month the Center for the Study of Responsive Law (which produces the Nader Reports on governmental and industrial nonfeasance) filed a class action suit against Bristol-Myers, charging that B-M's Excedrin ads are "false, misleading and deceptive." If you believe these ads, says the Center, you're paying a lot more than necessary for pain relief. One hundred Excedrin costs \$1.12 (in the drugstore we checked), a hundred Bayer aspirin 74 cents, and 1000 of the drugstore's brand sells for 99 cents. In buying a famous brand name, you're really subsidizing the company's huge advertising budget; in 1968, Bristol-Myers spent \$9.3 million on Excedrin promotion.

Bristol-Myers has had a good deal of experience in fighting off attacks on the integrity of their advertising. They've kept the Federal Trade Commission tied up in court since the early sixties with a similar case. Both the FTC and the Nader group have questioned the validity of Excedrin's "famous hospital study." The study was actually an examination of post partum pain, the pain suffered by women after childbirth. Obviously David Janssen couldn't talk about something like that in prime time in front of 125 million people. So Bristol-Myers just called it plain old pain. In March of this year NBC decided that was dishonest and banned the Janssen Excedrin commercial. In turn, Bristol-Myers quit buying time on NBC. In defending this action, Bristol-Myers told *Advertising Age* the commercial "is an accurate and truthful summary of a fine clinical study done by reputable and expert scientists."

The scientists are Drs. John P. Emich and Richard H. Schwarz of the department of obstetrics and gynecology at Philadelphia General Hospital. In their report, "A Dose Response and Relative Potency Study of Two Non-Narcotic Analgesics," the doctors say, "all patients were interviewed at their bedside by the research team which consisted of a graduate nurse specially trained in interview techniques and, on occasion, one of the physicians responsible for patient care." The questions were "both simple and meaningful - Do you have pain now? Where is your pain? Is it heavy, medium or light? These are representative of the questions asked." The patients' answers to these questions (data) were run through an IBM 360 computer and the results graphed as "Percentage PID: average pain intensity difference as a percentage of starting pain." Ac-

cording to the graphs, some patients got 34 percent relief from Excedrin or whatever they took, others 57 percent relief and so on. One might reasonably wonder how personal pain could be measured with such statistical, computerized precision. Classical studies of pain have been less ambitious, trying only to establish the "threshold of pain," the point at which pain initially occurs. After studying their pain print-outs and PID graphs, Drs. Schwarz and Emich concluded Excedrin to be the most effective post partum pain pill. The Responsive Law group asked an independent authority to examine the Philadelphia Hospital study. They called it a "gross statistical fraud."

As the case winds to the Supreme Court, Bristol-Myers will have to argue they didn't deceive anyone by simply saying pain rather than post partum pain. Contacted at Philadelphia General recently, Dr. Emich was asked whether his study could be used as evidence that Excedrin is the best thing you can buy for headaches, toothaches or any pain other than post partum. Dr. Emich said the study was performed on a "population complaining of post partum pain, this pain being entirely different from anybody's headache." "Do I think that you can compare the discomfort of uterine cramps or the pain after delivery? I really don't know whether you can or not because you're dealing in different pain systems. If you had a pain in your gut I would defy you to compare it to a pain in your head. It's like looking at apples and oranges." Then what about the Excedrin ad? "You're talking of something that I completely wipe my hands of."

EVALUATION OF HEALTH INFORMATION

TEACHERS ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Poster and advertisement evaluation.	Poster evaluation.	Should be able to use criteria developed to evaluate consumer health information.

EVALUATION OF HEALTH INFORMATION

Teacher Activity

Gather advertisements or have students bring in posters or advertisements of health products which will be analyzed using criteria developed for evaluating consumer health information.

AND/OR have students, working individually or in small groups, plan and stage an advertisement of a health product. The advertisement may then be staged in the class and evaluated in terms of its effectiveness and scientific validity.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Student Activity

Evaluate the posters displayed in the classroom using the criteria developed. Prepare your evaluation for classroom presentation.

AND/OR

Development of an advertisement

Working in groups of two to three students, plan an advertisement of a health product of your choice (either an actual product on the market or an imaginary product which you have created). As the promoters of the product, you want to develop the most effective advertisement in order to increase sales.

State the advertisement in the class. Other members of the class will evaluate your advertisement in terms of its effectiveness and scientific validity.

Gather posters or media advertisements of health products. Evaluate each poster in terms of its validity and effectiveness.

Objectives

The student will be able to develop and evaluate all advertisements of a health product.

Guidelines

1. Name, title, and background of promoter. (Is the title professionally recognized and legitimate?)
2. Product
 - a. Components and pharmacologic action of each component.
 - b. Medical condition for which product is used.
 - c. Instructions for use.
 - d. How patient receives products, e.g., through mail.
3. Method of initial diagnosis of medical condition, e.g., through mail, or by patient, or by M.D.
4. Method of post-treatment diagnosis. (Does the patient himself decide that he is "cured?")
5. Medical problem
 - a. Accepted medical treatment
 - b. Proposed treatment by product--scientific validity.
 - c. Comparison of accepted medical treatment and treatment proposed by product promoter.
6. Potential harm from proposed treatment.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Supplementary Activities

STUDENT ACTIVITY	OBJECTIVES
Assigned readings on quackery.	The student should be able to evaluate health information using at least five criteria.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Supplementary Activities

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
I. Reading assignment "The Curry Cancer Cure."	Assigned reading on quackery.	Should be able to evaluate health information.
II. Class discussion based on <u>Death Be Not Proud</u> , by John Gunther.		

EVALUATION OF HEALTH INFORMATION

QUACKERY

Supplementary Activities

1. Assign students to read "The Curry Cancer Cure" and evaluate the cure using guidelines delineated in student activity.
2. Using Death Be Not Proud, by John Gunther as an example, guide discussion to cover:
 - a. The reasons why quackery and folk medical practices are perpetuated.
 - b. Possible implications of utilizing unreliable or unproven sources of medical information or treatment. Or assign students as homework the reading of story and discussion of above points.

EVALUATION OF HEALTH INFORMATION

QUACKERY

Supplementary Activities

Read "The Curry Cancer Cure"* and evaluate the recommended cure.

Guidelines

1. Promoter of product.
2. Professional title and educational background.
3. Name of product.
4. Medical conditions for which product is used.
5. How is product used?
6. Who diagnoses the medical condition? (e.g., patient himself, product promoter.)
7. Who determines if the patient is "cured?"
8. How does the patient get the product? (e.g., drugstore, mail order.)
9. What is the accepted medical treatment for this condition?
10. Compare the accepted treatment with the proposed treatment.
11. Could use of the product be potentially harmful to the patient?

Read "Death Be Not Proud" by John Gunther.

The student will be able to discuss:

1. The reasons why quackery and folk medical practices are perpetuated.
22. Possible implications of utilizing unreliable or unproven sources of medical information or treatment.

*American Medical Association--Nostrums and Quackery.

EVALUATION OF HEALTH INFORMATION

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Distribute the evaluation or test to measure student attainment of behavioral objectives. You may add questions to the test. Score test.	Take test to determine if you have met the behavioral objectives of this section.	Should be able to complete the test accurately.

EVALUATION OF HEALTH INFORMATION

Student Test

I.

H O N E Y

Contains Ingredients for New Blood

Assures sound sleep

Prevents constipation

S.B.H., Inc.

A. List the criteria you would use in evaluating this advertisement for HONEY.

B. Evaluate the advertisement using the criteria you have listed.

II. Mr. Anderson has had a cough for several weeks. Recently, he began to spit up a small amount of blood. Since he has only accumulated two days of sick leave on his new job he has not wanted to take time off to go to a doctor. Last evening he saw an ad in the newspaper offering a quick cure for chronic coughs. By sending \$2 to the advertiser he would receive a trial bottle of this cure for cough. Mr. Anderson really felt he ought to see a medical doctor, but he finally decided to try the "cure for chronic coughs" which was advertised in the newspaper.

A. What factors do you think influenced Mr. Anderson's decision not to seek reliable medical care, but rather to try the "quick cure for coughs"?

B. What could happen to Mr. Anderson if he uses the "quick cure" and fails to seek reliable medical care?

C. If Mr. Anderson wanted to find out if the "quick cure for coughs" was a reliable treatment for coughs, suggest three agencies and/or individuals whom he could contact for information.

REFERENCES

QUACKERY

American Medical Association, Nostrums and Quackery. Chicago: Press of the American Medical Association, 1911

Bauer, W. W., "Education - A Weapon Against Quackery," in The Journal of School Health, 34:1-8, 1964.

Consumer Reports, editors, The Medicine Show, Revised Edition, Mount Vernon, N. Y.: Consumers Union.

Excellent resource for consumer health information.

Food and Drug Administration, Consumer Protection and Environmental Health Service, Public Health Service, U.S. Department of Health, Education and Welfare, "Quackery," "Some Questions and Answers About Dietary Supplements," "Self Medication," "Medicines - Prescription and Over The Counter," "Some Questions and Answers About Food Additives," "Some Questions and Answers About Medicines." Washington, D.C.

Smith, Ralph Lee, The Health Hucksters. New York: Thomas Y. Crowell Co., 1960.

The New Republic, "Excedrin's Headache," P. 7, August 15, 1970.

Young, James Howey, The Medical Messiahs. Princeton: Princeton University Press. Also available in paperback from Consumers Union, Mount Vernon, New York, 10550, \$2.00.

An interesting book on how quackery persists in an age of scientific enlightenment. Recommended as supplementary reading for the interested student.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 3: Community and Individual Responsibility in Providing and Utilizing Medical Care

PURPOSE

To explore the complex relationship between the individual and his community in the maintenance of health.

To make explicit the responsibilities and costs involved, for the individual and the community, in solving health problems.

To demonstrate that prevention is always cheaper than treatment in terms of money and human suffering.

MODULE I

ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 3: Community and Individual Responsibility in Providing and Utilizing Medical Care

Objectives

1. The student should be able to distinguish between individual and community preventive health responsibilities.
2. The student should be able to analyze the effect of a given health problem in terms of the individual and the community.
3. The student should be able to describe the importance of community involvement as it relates to health needs and services.
4. The student should be able to describe the relationship between increased health care services and the proliferation of jobs in allied health occupations.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 3: Community and Individual Responsibility in Providing and Utilizing Medical Care

PROCEDURE

Use films, classroom discussion, role playing and library assignments in this one and one-half week unit.

A detailed study of disease itself is not to be stressed at this time. (Several diseases will be examined in detail later in the curriculum, e.g., TB and VD.)

The areas of Environmental Health and Sanitation are to be explored in a separate unit. They need be mentioned at this time only in terms of community responsibility.

**COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE**

The Individual and The Team

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Introductory discussion: The basketball team is used as a model to indicate that the effects of a personal injury go beyond the individual (guidelines attached).	Class Discussion	Should be able to state one effect of a given health problem in each of the following areas: 1. Individual 2. Family 3. Community

COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN PROVIDING AND UTILIZING MEDICAL CARE

The Individual and The Team

Guidelines

Classroom discussion

Use a micro-environment as a model in examining the effect of an individual's health on the community and its resources, i.e., a basketball team, which is composed of five members.

An important guard is injured in a playing accident and will be incapacitated for a long time.

1. How is the individual affected? His skills, emotionally.
2. How is his family affected? Financially, socially.
3. Where can he go for help? Needs, resources.
4. How could he have prevented the problem?
5. Effect on the team in terms of:
 - a. Performance
 - b. Management (funds which would go for equipment, raises, etc., must go for replacement).
 - c. Morale of other players.
6. Summation of important points uncovered.

**COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE**

Rubella

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Review briefly with students, worksheet on film "Rubella" so they will be aware of which points to watch for in the film. Show film: "Rubella" Discussion Review worksheet with students.	Review worksheet View film: "Rubella" Answer question on worksheet. Discussion Discussion	Should be able to define "pre-ventive measure." Should be able to state three reasons why prevention is cheaper than treatment.

COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE

Rubella

Teacher Activity

Film: "Rubella" (German Measles)

This film explores the effects of a specific health problem on society in terms of personal tragedy and the cost to society.

Prevention is available for this disease, and its importance is to be stressed.

Discussion Questions

1. Personal responsibility in prevention.
2. Community responsibility in prevention.
3. Why do some people not seek help?
 - a. Societal barrier (barriers created by health care delivery system).
 - b. Individual barriers to adequate protection (referring back to quackery and folk medicine).
4. Community responsibility in providing services for the afflicted.

**COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE**

Venereal Disease

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Class Discussion: VD is used as an example of disease "epidemic" and its far-reaching effects. (guidelines attached) Films are available for helping instructor to explain content* (information about the two primary venereal diseases.	Class discussion and/or film.	Should be able to name the two most prevalent venereal diseases and tell a danger associated with each. Should be able to describe two areas of personal responsibility in relation to VD. Should be able to name two sources of help for those who think they are infected.

*See pages 104-5 for resource material.

COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE

Venereal Disease

Guidelines

Classroom Discussion: Health Problem of Epidemic Proportions

Examine the effect of the specific health problem, Venereal Disease (syphilis or gonorrhea) on the individual and the community.¹

1. How is the individual affected physically and emotionally?
2. What responsibility does he have for his contacts and why?
3. Is his family involved?² If not, why?
4. Where can he go for help? Community resources.
5. Could he have prevented the problem?
6. Effect on the community in terms of:
 - a. Needed services
 - b. Community health
7. Venereal Diseases are reportable; what does this mean?

¹See pages 104-5 for resource material.

²In California, an individual can go to a public health facility for treatment without parental consent or notification if above the age of 12.

Library Assignment

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**COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE**

Student Activity

Library Assignment: A Public Health Problem

Pairs of students will develop a five minute presentation about a health problem, which can include drawings, posters or graphs. This presentation must include the following points:

1. Description and extent of the problem.
2. Preventive measures that could be taken (if possible).
3. Effect on the individual and his family.
4. Resources available for help.

Suggested topics:

1. Alcoholism
2. Car accidents
3. Suicide
4. Drugs
5. Teenage pregnancies (unwed mothers)
6. Infant mortality
7. Tuberculosis

**COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN
PROVIDING AND UTILIZING MEDICAL CARE**

Supplementary Activity

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
If students function well in a role-playing situation, this activity may be used. Situations designed around various health problems. Students asked to act out (in class) how they would cope with these problems.	Role improvisations suggested by teacher. OR students develop their own situations for subsequent role-playing.	Should be able to name appropriate source for health care.

COMMUNITY AND INDIVIDUAL RESPONSIBILITY IN PROVIDING AND UTILIZING MEDICAL CARE

Supplementary Activity

Improvisations:

Set up simple situations, each built around a health problem. Select students to take the different roles and let them handle the problem. There should be a time limit, possibly three minutes. Spend five to ten minutes analyzing the choices and the ways that were used to cope with the problem, and then move on to another scene.

Sample situations:

1. Two students are told: "You are close friends. One has been on pills, feels ill, and can't function. He is now very worried. What do you do, where do you go?"
2. Your boss has a deadline for a certain amount of work. If he doesn't meet the deadline, he loses the account. Your frequent absence because of illness can upset the schedule. What do you do? How do you handle the problem?
3. Infant mortality is a big problem in the community. Select two to three girls to play the wives. They are concerned about having healthy babies: What do they do? Where can they go? How does infant mortality affect the family and community?
4. A husband and wife are planning a budget. What do they do about possible illness?
5. Father, who is a wage earner, is diagnosed as having active T.B. (see material on T.B. in Folk Medicine). Act out how this affects the family. What services are needed? (Could use V.D. or alcoholism as diagnoses.)

RESOURCES

Los Angeles County Health Department

1. Provides materials (pamphlets, posters), on V.D., alcoholism, etc., for teachers and students.
2. Makes films available on a wide variety of topics for classroom teachers.

SUGGESTED FILMS:

Venereal Disease: "Quarter of a Million Teenagers," "Kathy"

Alcoholism: "A Time for Decision"

BIBLIOGRAPHY

Goerke, L. and E. Stebbins, Mustard's Introduction to Public Health, 5th edition. New York: The MacMillan Co., 1968.

Very readable book; covers the main topics of public health. Would be useful as a classroom reference book.

McCarthy, R., Alcohol Education for Classroom and Community. New York: McGraw-Hill Book Co., 1964.

An important book for anyone dealing with the problems of alcoholism. Full of good information, approaches, and guidelines appropriate to age of students.

Report of the National Commission on Community Health Services: Health is a Community Affair. Cambridge: Harvard University Press, 1967.

An excellent report outlining current community needs, management of resources, and constructive recommendations for the problems in our present health care delivery system.

Sartwell, Phillips, ed., Preventive Medicine and Public Health, 9th edition. New York: Meredith Publishing Co., 1965.

Valuable book for instructor; covers all aspects of public health.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 4: Components and Problems of the Health Care System

PURPOSE

To present an overview of the components and problems of the health care system. This includes a review of facilities mentioned in previous units and a study of present problems in delivering good health care to all, such as: inadequate integration of facilities, unavailability of service, financing and manpower shortages.

To examine the problems in conjunction with new approaches and ideas for solutions.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 4: Components and Problems of the Health Care System

Objectives

1. The student should be able to name major types of facilities and list services offered within the health care system.
2. The student should be able to list major problems of the present health care delivery system.
3. The student should be able to describe the relationship between the increased demand for health services and the increased need for manpower and facilities in the health care field.
4. The student should be able to list and describe briefly the main types of health insurance plans presently available or proposed in the United States.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 4: Components and Problems of the Health Care System

PROCEDURE

This one and one-half week unit should include field trips to, or guest speakers from, health care facilities with classroom follow-up. A number of films are also available covering the content of much of the unit.

Insurance brochures can be used to introduce the leading health insurance plans which should then be compared in class panel discussions.

TAKEN FROM: Classification of Health Care Institutions,
1968 Edition, American Hospital Association

GLOSSARY OF TERMS

- Activities of Daily Living Getting out of bed, bathing, dressing, eating, walking, and taking of medications prescribed for self-administration
- Adaptive Services Health-related services provided on a nonresident basis (non-resident health-related services were included in the classification for future definition)
- Continuous Available at all times without cessation, break, or interruption
- Direction Authoritative policy or procedural guidance for the accomplishment of a function or activity
- Facilities Those objects, including plant, equipment, and supplies, necessary for implementation of services by personnel
- Governing Authority The individual, agency, group, or corporation, appointed, elected, or otherwise designated, in which the ultimate responsibility and authority for the conduct of the institution is vested
- Health-Related Services Services other than medical pertaining to protective, preventive, and personal services performed by qualified personnel
- Inpatient Beds Accommodations with supporting services (such as food, laundry, housekeeping) for patients who generally stay in excess of 24 hours
- Institution A public or private establishment set up so that a certain continuance is assured; an established society or corporation; also, a building or buildings occupied by such an organization
- Licensed Graduate Nurse A nurse who is a graduate of an approved school either of professional nursing or of practical nursing, and who is licensed to practice
- Maintain To keep in a state of efficiency
- Medical Of, or pertaining to, or dealing with, the healing art or the science of medicine
- Medical Services The services pertaining to medical care that are performed at the direction of a physician in behalf of patients by physicians, dentists, nurses, and other professional and technical personnel
- Nursing Services Those medical services pertaining to the curative, restorative, preventive aspects of nursing care that are performed and/or supervised by a registered professional nurse at the direction of a physician
- Organized Medical Staff A formal organization of physicians (and dentists where appropriate) with the delegated authority and responsibility to maintain proper standards of medical care and to plan for continued betterment of that care

- Personal Care Services Those health-related services that include general supervision of, and direct assistance to, individuals in their activities of daily living
- Physician A physician with an unrestricted license to practice
- Registered Professional Nurse A nurse who is a graduate of an approved school of professional nursing and who is licensed to practice
- Resident Beds Accommodations with supporting services (such as food, laundry, housekeeping) for residents who generally stay in excess of 24 hours
- Sheltered Care Services Those health-related services that include provision of general supervision and protection, with only occasional direct personal care services, to individuals who are in need of a protective environment but are otherwise able to manage the normal activities of daily living
- Supervision Direct overseeing and inspection of the act of accomplishing a function or activity

Glossary from American Hospital Association, permission to use applied for.

COMPONENTS AND PROBLEMS OF THE HEALTH CARE SYSTEM

Content Outline

I. Introduction - The Health Care System

A. Organization of the Health Care System

1. A new plan - Regional Medical Program

The Public Health Service Act (Public Law 89-239), defines a regional medical program as a cooperative arrangement among a group of public or private non-profit institutions or agencies engaged in research, training, diagnosis, and treatment relating to heart disease, cancer, stroke, and, at the option of the applicant, related disease or diseases; but only if such a group:

- a. Is situated within a geographical area, composed of any part or parts of any one or more states which the Surgeon General determines, in accordance with regulations, to be appropriate for carrying out the purposes of the Act.
 - b. Consists of one or more medical centers, one or more clinical research centers, and one or more hospitals.
 - c. Has in effect cooperative arrangements among its component units which the Surgeon General finds will be adequate for effectively carrying out the purposes of this program.
 - d. The California Regional Medical Programs (heart disease, cancer, stroke, and related diseases) are dedicated to the following ideal standard: to bring to physicians in all of California's farflung communities:
 - (1) The benefits of latest research.
 - (2) Demonstration of new techniques.
 - (3) Intensive continuing education and training.
 - (4) Inexpensive access to costly equipment, so that they may share, and pass on to the patients they serve, the capabilities until now readily accessible only to physicians in urban and metropolitan centers of medical excellence.
2. Other plans are being developed at state and local levels to reorganize health care delivery.

B. Components of the Health Care System

1. Hospitals

Establishments with organized medical staffs; with permanent facilities that include in-patient beds; and with medical services, including physician services and continuous nursing services, to provide diagnosis and treatment for patients.

Other essential characteristics:

- a. A current and complete medical record is maintained for each patient.
- b. Pharmacy service is maintained in the institution and is supervised by a registered pharmacist.
- c. Diagnostic X-ray service, with facilities and staff for a variety of procedures, is maintained in the institution.
- d. Clinical laboratory services, with facilities and staff for a variety of tests and procedures, is maintained in the institution; anatomical pathology services are regularly and conveniently available.
- e. Operating room service, with facilities and staff, is maintained in the institution.
- f. Food served to patients meets their nutritional requirements, and special diets are regularly available.

2. Extended Care Facilities

a. Nursing Home

The Medicare law specifies that in order to qualify for treating Medicare beneficiaries, a nursing home must arrange with the hospital to transfer patients and records back and forth. In addition, a nursing home must have round-the-clock nursing services, with at least one registered nurse employed full-time; a physician available to handle emergencies; appropriate medical policies governing the facility's skilled nursing care and related services; specified methods and procedures for the handling of drugs; and utilization review procedures similar to those required of hospitals participating in the Medicare Program.

b. General extended care facilities

Establishments with organized medical staffs; with permanent facilities that include in-patient beds; and with medical services, including physician services and continuous nursing services, to provide treatment for patients who require in-patient care but are not in an acute phase of illness, who currently require primarily convalescent or restorative services, and who have a variety of medical conditions.

The nursing services are under the supervision of a full-time registered professional nurse; licensed graduate nurse supervision and other nursing services are continuous.

3. Public Health Clinics

Establishments with organized medical staffs; with permanent facilities; and with medical services to provide diagnosis, treatment, or both, for patients who primarily are ambulatory and do not currently require in-patient care; medical services are limited to such specific areas as immunizations, tuberculosis, chest X-ray, well-baby services, prenatal services, family planning, cancer tests, dental care, youth clinic, venereal diseases, and eye examination for glaucoma.

4. Out-patient Care Institutions

Establishments with organized medical staffs; with permanent facilities; and with medical services to provide diagnosis and treatment for patients who primarily are ambulatory and do not currently require in-patient care, and who have a variety of medical conditions.

5. Rehabilitation Facilities

C. New Patterns of Health Care

1. Multipurpose Health Center (Neighborhood Health Center)

A facility which serves everyone in the specific target area who is living at the poverty level. The center provides comprehensive, high quality, personalized, continuous health care. Services for the entire family are offered at a conveniently located facility, and the various ambulatory services are provided under one roof.

The services offered include:

- a. Internal medicine
 - b. Pediatrics
 - c. Gynecology
 - d. General surgery
 - e. Emergency room
 - f. Dental service, including such specialities as Orthodontics, Prosthodontics, Periodontics and Pedodontics.
 - g. Dietetics
 - h. Physical medicine and rehabilitation
 - i. X-ray
 - j. Social health
 - k. Nursing services
 - l. Health Education
2. Community Mental Health Center

A model for comprehensive mental health center*: a multi service center designed to provide preventive services, early diagnosis, and treatment of mental illness on both an in-patient and out-patient basis, and to serve as a focus for the aftercare of discharged hospital patients. The spectrum of services should include:

- a. A general diagnostic and evaluation service (precare).
- b. An acute in-patient services and an outpatient service.
- c. A day-care service and a high-care service.
- d. An emergency service available around the clock.
- e. Rehabilitation services.
- f. Consultation services.
- g. Public information and education services.
- h. Supervision of foster homes
- i. Research and training

By means of these, true continuity of mental and emotional care would become possible.

*Felix, R. H., "A Model for Comprehensive Mental Health Centers," American Journal of Public Health 54:1964, December, 1964.

3. Drug Clinic

- a. A facility with an organized staff consisting of physicians, nurses, community workers, social workers, and clerks. Health educators may also be employed at this facility.
- b. Services offered include medical diagnosis and evaluation, treatment (i.e., detoxification service for heroin addicts on an out-patient basis), group and individual counseling and psychotherapy, social work services, and referral to appropriate community agencies.
- c. Also acts as an initial intake point for potential hospital patients and community half-way houses.
- d. Service is confidential.
- e. No age limitation.

4. Adolescent Clinics

- a. The Youth Clinic (Sponsored by the County Health Department)

This facility offers treatment for many conditions that can be cared for on an out-patient basis, primarily, venereal diseases, prenatal care, family planning service and care of respiratory infections, hepatitis, infections caused by the use of contaminated needles, and general medical conditions. Counseling and referral services are also provided.

The youth clinic has been designed primarily to reach one segment of the population. However, anyone of any age is welcome to use these facilities. There is neither residential nor means requirement. Complete confidentiality of all that passes between patient and staff is irrevocably guaranteed.

The basic staff of the youth clinic includes:

- (1) Two physicians
- (2) Two nurses
- (3) One social worker
- (4) One microbiologist
- (5) One nutritionist
- (6) One clerk
- (7) Two non-professional aides
- (8) Various volunteer, professional, and nonprofessional workers.

b. The Free Clinic (Sponsored by private parties)

A clinic directed and operated by the people who use it, with small or no charges, no red tape, and a non-judgmental climate. The physicians and nurses, and everyone else down the line to the receptionist, volunteer their services. Some hospitals, pharmaceutical firms, and drug stores donate medical supplies. Cash donations and anonymous gifts are increasing, principally because the parents of teenagers and young adults who become involved with drugs face an imperative: punitive treatment with perhaps harsh and lifelong consequences for their children, or acceptance and support of the humane, non-judgmental treatment the free clinics offer.*

5. Multiphasic Screening

Multiphasic screening involves the administration of a battery of tests by health and medical personnel. The tests are for the purpose of detecting signs of disease, and they provide information specifying the probability that a follow-up physical examination would validate a given diagnostic condition.

Since the screening is done for several diseases simultaneously, the procedures can lead to the discovery of a considerable number of cases of incipient diseases which might be overlooked in routine check-ups. Multiphasic screening is not a substitute for a comprehensive health examination, but it does assist in organizing an economical follow-up service.

II. Background of the Health Care Crisis

Technology, skills, and knowledge in the medical field exists but the present health care delivery system does not meet the health needs of all segments of the population.

- A. Increase in population has not been paralleled by proportionate increase in health manpower and facilities.
- B. New federal, state, and local programs have placed new burdens on the health care system. (Possibility that National Health Insurance will place tremendous burden on present system.)

*California's Health, April, 1970, pp. 1-6.

C. Increased demand for health care

1. Larger population

a. Larger proportion of very young

b. Larger proportion of elderly

(1) 1950 - 12.3 million over 65 years of age

(2) 1966 - 18.5 million over 65 years of age

(3) Chronic diseases increase with age

2. Increased availability of health insurance plans leads to increased demand for health care.

3. Great affluence leads more people to seek health care.

4. People are more aware of health care and are demanding more and better health care services.

D. Rising Cost of Care.

III. Problems of the Present Health Care Delivery System

A. Manpower

1. Uneven distribution of health workers

a. There is a concentration of medical workers in the wealthier States of the country.

Professionals	(National Average /100,000 pop)	Calif.	New York	Mass.	Ala.	Miss.
Doctors	161	161	199	181	75	69
Nurses	313	312	408	532	168	157
Dentists	46	62	67	61	29	25

b. These figures point up the fact that new workers are needed if only to bring some of the poorer States on par with the wealthy States.

- c. For economic and professional reasons, physicians tend to concentrate in metropolitan areas. Such areas are usually characterized by high income, large population densities, and opportunities for entrance to large hospitals which tend to be better staffed and equipped. The metropolitan areas also support the bulk of paramedicals. An example of physician distribution in relation to urban-rural areas follows:

<u>Type of Area</u>	<u>Number of Physicians / 100,000 People</u>
Greater Metropolitan	175
Lesser Metropolitan	125
Adjacent to Metropolitan	75
Isolated semi-rural	80
Isolated rural	49

- d. Within any one urban area, there are wide gaps in the availability of health care to the people. The reasons for the gaps are location of hospitals, and economic plight of people, which doesn't encourage physicians to practice in those areas, and racial barriers. Below are examples of the pattern of health care that exist in Los Angeles County.

<u>Health District</u>	<u>No. Physicians 100,000 people</u>	<u>No. Acute Beds 100,000 people</u>	<u>No. Extended Care Beds 100,000 people</u>
Alhambra	91.3	160.4	584.5
Central	354.7	129.9	889.5
East Valley	54.2	107.0	350.7
El Monte	20.2	93.1	558.5
Hollywood-Wilshire	222.6	444.9	383.8
Northeast	143.4	157.9	441.5
Pasadena	285.2	532.1	1269.3
San Fernando	81.4	292.3	669.6
South	47.8	80.0	20.8
South East	43.5	420.8	91.3
South West	56.6	104.1	295.8

2. Manpower Shortage

- a. Shortage of manpower increases gap between the level of medical technology, skills and knowledge, and the degree to which the health needs of the population are met.
- b. Demand for health services exceeds supply of manpower and facilities.
- c. There is a need for new health workers as well as more of them.

The number of physicians per 100,000 people has not increased by any great extent in the past 25 years. The trend of new health care has allowed the physician shortage to be mitigated by utilization of assistants and aides. The requirements for personnel in the health care field are not being met. The projected shortage of personnel is shown below.

Type of Workers	Present No.	Present Shortage	Projected No.-1975	Projected Shortage-1975
Nurses (Reg.)	621,000	69,000	816,000	184,000
Practical Nurses	320,000	55,000	546,000	4,000
Other Nurses	775,000	65,000	1,000,000	75,000
Workers (At least B.S. Degree)	175,000	50,000	270,000	93,000
Workers (Less than B.S.)	276,000	60,000	400,000	88,000

3. Development of programs to: (1) develop and test methods of meeting the health manpower crisis and (2) recruit and train allied health workers.

Examples: UCLA Allied Health Professions Project and its Secondary School Pilot and Demonstration Project.

"New Careers" - Institute for Youth Studies, Job Corps, etc.

B. Facilities

1. Inadequate numbers of facilities
2. Inadequate staffing of facilities
 - a. Most training programs are federally, state, or locally supported; there are few training programs in private institutions.

- b. Tendency toward emphasis on training researchers rather than practitioners.
- c. Cost, time in training, and limited number of schools discourage people from entering the field of health care.
- d. Present efforts aimed at training health manpower are only able to maintain the inadequate status quo.
- e. Unequal geographic distribution of health workers, e.g., practitioners tend to remain in urban metropolitan areas rather than rural areas within a given area. Practitioners are unequally distributed--compare ratio of doctors to population in Watts and in Beverly Hills.

C. Inefficient Planning and Duplication of Services

"Hospitals have not been built or existing institutions have not expanded, so any of the tools of modern medicine are denied to inhabitants in the vicinity unless they seek assistance in quarters farther from home. In some regions, there are plentiful resources, but they are poorly distributed, poorly organized, or poorly utilized - with waste of expenditure or manpower; overlap and duplication of endeavor, excellent medical services for some, and limited accessibility to adequate medical care for others. These conditions are to be found in many of our large cities, where facilities have grown piecemeal rather than by cogent planning and design, and where physicians and professional personnel have located themselves arbitrarily and not by any uniform pattern of distribution. In some neighborhoods, gigantic hospital complexes are located within a few blocks of each other - each of which possess costly and rather infrequently employed equipment. There may be two cobalt therapy units in separate hospitals proximate to one another, each of which is used approximately half time, where obviously one would do. On the other hand, a unit might not be found in any of a dozen additional hospitals located in a radius of 25 or 30 miles. In the same metropolis, physicians may be densely clustered in a few medical buildings or plazas, leaving large sprawling neighborhood areas without a single doctor. Those who reside in ghetto sections may be within walking distance of a hospital facility; yet if they require inpatient emergency care, it might be necessary for them to be transported many miles to the nearest, and in many instances, the only municipal or county institution."*

*Roy F. Perkins, American Journal of Public Health, Vol. 58, No. 7, July, 1968, pp. 1154-61.

D. Inefficient Utilization of Resources

1. Hours designed for convenience of personnel rather than for patients - open hours during which most people work; services unavailable after these hours.
2. More efficient economically to use facilities longer hours.
3. Location frequently barrier to utilization.

In most urban areas, public hospital facilities are few and far between; therefore, one major problem is transportation. Another is the hours the facility is open. Among the poor, adequate transportation is the major concern although they would use the available agencies if they had transportation. About twice as many females as males reported a lack of adequate transportation as reason for not making more use of agencies and services. Other persons who have difficulties getting to health facilities are teenagers, divorcees, separated women, persons with small children. Low-income persons, usually, do not have cars because of upkeep and insurance cost, or the working member of the family needs the only car for work. Public transportation is slow and expensive.

- E. Fragmentation of services offered by facilities may necessitate seeking care at many different facilities.
- F. Spiraling costs of health care barrier to utilization.

IV. Approaches to the Problems of the Health Care Delivery System

A. Manpower Shortages

1. Development of training programs to train for new allied health professions.
2. Active recruitment to field.

B. Inadequate facilities to meet demand.

1. Inadequate numbers
 - a. Federal support
 - b. Private corporation
 - c. Insurance company
2. Inadequate staffing
 - a. Public, private, and governmental education programs
 - b. Larger medical and paramedical classes
 - c. Employment, re-education, and upgrading
 - d. Technological utilization

C. Inefficient planning and duplication of services

1. Equipment utilization
 - a. Coordination of community hospitals; i.e., computer time-sharing, sharing of cobalt radiotherapy equipment
 - b. Hospital specialty
2. Facilities utilization
 - a. Patient exchange
 - b. Staff coordination and exchange
 - c. Expanded hours of service - e.g., 24-hour service

3. Location often barrier to utilization
 - a. Community hospitals or neighborhood centers
 - b. Improved public transportation
- D. Fragmentation of services
 1. Multipurpose centers, e.g., Watts Multipurpose Health Services Center
 2. Comprehensive health care
 3. Group practice
- E. Cost of medical health care
 1. National health insurance
 2. Employee health insurance
 3. Group payment
- V. Health Insurance
 - A. Spiraling Costs
 1. As medical care has advanced in effectiveness and capability through availability of more versatile and costly diagnostic and therapeutic tools (cobalt, radiotherapy), incorporation of greater numbers of supportive and skilled personnel, utilization of more time-consuming and complex procedures, development of more potent drug products, and physicians' training time, the cost of health care has increased concurrently.
 2. The demands upon the facilities have increased because of (1) population increase, i.e., more persons over 65 and more persons under 25, (2) facility improvement and expansion cost, (3) long life-span with more age-associated disease, (4) employee demands for higher salaries, (5) more research, (6) higher cost of hospital supplies. The above lists only a few reasons for the increased cost of medical care.
 - B. Coverage gap - coverage not comprehensive
 1. Health care insurances do not include dental care, eye-glasses, drugs (out-patient), and outpatient mental health. Health Insurance met 69 percent of the consumers' expenditures for hospital care in 1964 and 35 percent of the physicians' services; it paid for only two percent of other types of personal health services.

2. Most insurance coverage is for "sick" persons who must be hospitalized for coverage. The coverage does not include preventive medicine or outpatient diagnostic medicine, i.e., E.K.G., yearly checkups.
3. Persons who need long-term hospitalization are covered for only a given amount of money although hospitalization may require months or years - i.e., stroke victims, tuberculosis patients, mental illness.
4. Some insurance companies refuse to give any coverage for certain types of diseases.
5. The percentage payment of insurance may cause the low-income person to use available funds for medical care instead of food, etc.
6. There are no provisions for helping to solve the problems of the aged or young.

C. Types of plans

1. Government

a. Federal Insurance - (Medicare)

Medicare provides everyone 65 or older with some days of free hospital care after a cash deduction in order to avoid unnecessary hospitalization, and additional days of hospital care at a fixed rate. Other benefits, such as free nursing home care, etc., are available under the Social Security program.

b. State Insurance Supplement - (Medicaid)

"This section of Act, known as Title XIX (Medicaid), extends eligibility to all persons who are eligible for federally aided public assistance programs - the aged, the blind, the disabled, and families receiving Aid to Dependent Children assistance. State may also include medically indigent children under the age of 21 years. For the aged Title XIX may serve as supplement to XVII, the basic Medicare section, since it allows States to pay both the deductibles and the voluntary medical insurance premiums for the aged who are wholly dependent upon old-age assistance. States may also elect to pay the deductibles for elderly persons whose Social Security payments are supplemented with old age assistance payments. States were allowed until 1970 to adopt Title XIX, depending upon their respective wishes. To pay for the voluntary or Title XIX supplements, people 65 years or over who wish to participate, contribute each month. This is supplemented from the general treasury."

2. Privately-sponsored health insurance

a. Blue Cross

- 1) There are 77 plans in the 50 states.
- 2) In 1950, Blue Cross plans paid out in benefits about 88 cents on the dollar, leaving 12 cents to cover administrative cost. In 1958, about 97 cents on the dollar were being paid out in benefits, leaving three cents for administration. The net result has been that Blue Cross, while managing to keep up with the commercial companies in expanded benefits and more flexible contracts for groups, has done so only at the expense of largely abandoning the principle of service benefits.
- 3) Coverage: The subscriber is granted free choice of hospitals with the responsibility of services resting upon the hospital. The premium rates are uniform for all persons regardless of differing risk of illness. The coverage is fixed as to the number of days in the hospital and the dollar sum per day in the hospital regardless of charges incurred.

b. Blue Shield

- 1) There are 71 plans in the 50 States. In 30 States they operate outside of the insurance laws under special legislation and in 20 States the plan is covered by regular insurance laws.
- 2) The physician is allowed to charge more than the established schedule of fees for patients with higher income.

3. Workmen's Compensation

- a. A program which provides treatment and rehabilitation of workers injured on the job has been generated in every country with any degree of industrialization.
- b. In some underdeveloped countries, workmen's compensation is superior to health plans for the general population.
- c. All work-related injuries are considered to be compensable. The amount of the award is based upon loss of wages and necessity of medical care.
- d. In New York, Pennsylvania, and Minnesota, one-third of the on-the-job injuries receive no compensation.

- e. The time between injury and compensation is short; therefore, the household and medical bills can be paid as they arise.
- f. Injured workers are treated by private physicians and hospitalized in the community, although government-sponsored hospitals provide this service outside the U.S.
- g. Workmen's Compensation acts as an incentive to employers to improve hazardous working conditions, thus reducing accidents and work losses.
- h. Workmen's Compensation represents a major step forward in extending workers' rights, but until the program focuses on restoring the worker to maximal productivity it will not meet the full challenge of its mission.

4. Prepaid Group Practice

Group practice health insurance provides the best comprehensive care of the insurance plans mentioned thus far.

- a. Provides for preventive and diagnostic testing.
- b. Cost to the subscribers mostly outpatient drugs.
- c. Provides health care staff and facility.
- d. Decreases use of hospitals by comprehensive planning.
- e. Provides specialists for most ills except dental.

5. Proposed National Health Insurance

(Major proposed plans from "National Health Insurance," Perspective, the Blue Cross Magazine, first quarter, 1971.)

- a. Ameriplan (not yet introduced in Congress)
 - 1) For the poor and near-poor - coverage without charge; everyone else would purchase standard benefits and buy supplemental benefits.
 - 2) Would replace Medicare and Medicaid.
 - 3) Formation of a Health Care Corporation to bring health care management, personnel, and facilities in a given geographical area into a corporate structure.
 - 4) Health insurers could operate as they now do and sell standard benefits.
 - 5) Adopted by American Hospital Association, House of Delegates, January 27, 1971.

b. Kennedy - Health Security Act

- 1) Comparative benefits for nearly all health services.
- 2) Total population is eligible; plan compulsory.
- 3) Eliminates private insurers.
- 4) Asserts that high quality health care is a right of citizenship.
- 5) Cost seems to be barrier to passage.
- 6) Introduced in Senate, August 27, 1970.

c. American Medical Association - "Medicredit" Health Insurance Assistance Act

- 1) Medicare would remain intact; would replace Medicaid for those under 65 years.
- 2) Voluntary participation for total population: those over 65 would remain in Medicare.
- 3) Income tax credit for purchase of private insurance; poor receive health insurance certificates redeemable in lieu of cash.
- 4) No change in current role of private insurers.
- 5) No proposed change in delivery of care.
- 6) Introduced in House July 21, 1970; reintroduced February 25, 1971.
- 7) Not highly favored because it provides no cost controls on preventive care.

D. Nixon - National Health Insurance Standards Act (for employers)

Family Health Insurance Plan (for poor)

1. Public Phase - free insurance to families of four with income less than \$3,000/year; graduated fees for those earning up to \$5000.
2. Private Phase (financed by employers and employees)

Except State and local government workers, self-employed, domestics, part-time, and seasonal workers.

3. Health Maintenance organizations would be formed to stress preventive care and to provide more care to more people.
4. Introduced as legislation February 18, 1971.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Teacher Activity

I. Field Trip:

Select at least three of the following facilities for field trips. The purpose of these visits is to determine what services are offered at each facility and eligibility for services at a given facility. Develop classroom follow-up activities for each field experience. Include in list an Extended-Care facility, such as a geriatric center (select an accredited facility of 90 beds or more).

Youth or Adolescent Clinic

Drug Clinic

Free Clinic

Multipurpose Neighborhood Health Center

Multiphasic Screening Program

Mental Health Facility

Rehabilitation Center

II. Films:

As an adjunct or alternative to a facility field trip, films may be shown. They should be previewed before class showing. Suggested films for geriatric facilities are as follows:

A. "Aging--A Modern Social Achievement"

An introduction to discussion concerning the geriatric population with concomitant social and economic changes. Also shows how medical advances have increased life span, thus increasing this particular segment of the population. (Color, 12 min., 1955)

B. "Homes that Care"

Shows ideal practices and standards to be incorporated into maintenance of nursing homes for the geriatric patient. Stress is placed on treating patient as an individual. (Black and white, 30 min., 1958)

C. "Where Life Still Means Living"--Documentary--Montefiore Home for the Aged.

Situations involving total care of a stroke victim and his senile wife in this geriatric setting. Care is geared toward making the patients comfortable and accepting of their new way of life. (Color, 24 min., 1965)

Check film catalogs for films discussing other types of facilities.

III. Speakers: If field trips cannot be arranged with the facilities, request a speaker from the proper facility to come to the class.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Film: "Your County Health Department"

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Visit the County Health Department.*	Visit Health Department or view film.	Should be able to identify major facilities within the greater Los Angeles area.*
Initiate discussion by posing open-end questions. List possible questions.	Ask, answer questions regarding film content.	Should be able to identify services furnished by above facilities.
Answer questions concerning facilities depicted in film.	Enter into discussion concerning film.	Should be able to recall terms learned in course of this activity.
Ask students to recall facilities mentioned.	Mention services (facilities) within community not shown in film.	Should be able to list and define new terms.
*Adapt the film discussion to your local county. Since the curriculum was developed in Los Angeles, we use this city as the example. Reference: "Your County Health Department" -- pamphlet available from Health Department at no cost.		

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Use of Map for Facilities Location (community)

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Present blow-up of South-east Health District* Write facilities on blackboard. Furnish address or locations of above facilities or have students look up addresses as homework. Begin discussion of health facilities in area. Indicate in lecture how these facilities integrate within the greater L.A. health care system components. Stimulate discussion on "Your County Health Departments" by having students recall film previously shown (or field trip). *Adapt to your local County Health District or community.	Using map tacks, students will pinpoint major community facilities on blow-up. Duplicate simple diagram of blow-up on individual basis. Make simple stick drawings to denote kinds of services available at facilities.	Should be able to recall the kinds of services available at facilities within their community. Should be able to recall locations of above facilities. Should be able to discern facilities lacking in their community by comparing greater L.A. facilities.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Geriatrics (population and facilities)*

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Lecture, discussion centered on specific facilities designed for short-, long-term population.	Will answer questions concerning facilities for geriatric population.	Should be able to recall some institutions specifically geared for geriatric population.
Definition: Geriatrics. Conduct short discussion as to why this population needs special institutions.	Will add terms to terminology list.	Should be able to list some problems peculiar to the geriatric population.
Question: Do they really need them? What are alternatives for geriatric care? Describe facility to be visited.	Will recall some personal experiences regarding an elderly relative.	Should be able to pinpoint specific areas of care for geriatrics.
Pass out questionnaire; discuss areas to be stressed during visit.	List stressed points in class at facility, take notes on same stressed points.	
Films (See guidelines) Substituted for field trip.		
Teacher activity same as preparation for field trip.	Same as preparation for field trip.	
*Teacher: Develop similar follow-up activities for the facilities the class has visited, observed in films, or heard a speaker discuss.		

"Health in America"

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COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Hunger in America

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Show film: "Hunger in America." Source: California State Department of Public Health.	View film. Participate in discussion	Should be able to state that there are problems of malnutrition and hunger in the U.S.A. Should be able to list at least two effects of hunger and malnutrition on the individual, such as loss of productivity and illness. Should be able to name the major governmental food programs and list problems with each program.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Teacher Activity

I. Show film - "Hunger In America" (A CBS Reports Program)

(2 reels) 54 min., 1968

An intensively researched documentary on the lack of food, and the lack of essential nutritive elements in the diets of impoverished Mexican-Americans in San Antonio, Texas; Navajo Indians in Arizona; tenant farmers living within 25 miles of Washington, D.C., the nation's capital; and negro sharecroppers in Alabama. The narration by Charles Kuralt includes information about 1968 governmental surplus foods, food stamps, and farm subsidy programs. Through on-the-spot photography and interviews, the effects of starvation and of the need for such foods as fruit and vegetables, fresh milk, cereals, meats, and eggs, are contrasted with the foods available to poor Americans through government programs. The film points up daily hunger in millions of human beings in one of the world's most wealthy nations. Designed to foster understanding and development of remedies for the problem, it also provides insight into the feelings and attitudes of those involved.

II. Lead discussion based on films

Discussion of present government food programs and problems of each.

1. Food Stamps
2. Commodity Distribution
3. Farm Subsidies

Reference: Hunger, USA -- A Report by the Citizens Board of Inquiry into Hunger and Malnutrition in the United States. Boston: Beacon Press, 1968. (\$1.95)

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Supplementary Activities

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Read "John O' Connor: The Cost of Cure in Five Patients," in <u>The Hospital Explained</u>, by Michael Crichton, New York: Alfred A. Knopf, 1970. Read CBS Reports,* "Don't Get Sick in America." Daniel Schorr, Narrator.	Read "John O'Connor: The Cost of Cure in Five Patients," in <u>The Hospital Explained</u>, by Michael Crichton, New York: Alfred A. Knopf, 1970. Read CBS Reports,* "Don't Get Sick in America." Daniel Schorr, Narrator.	Should be able to discuss new methods of diagnosis and their impact on delivery of health care.

*Copy obtainable at Director of Special Projects, CBS, Inc., 524 W. 57th Street, New York, New York 10019.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Select diagrams, charts, etc., or develop sketches to demonstrate the problems of the health care system. Discuss problems and possible solutions to the problems of the health care delivery system.	Exercise: Problem of the Health Care System.	Should be able to list and describe the major problems of the present health care system. Should be able to describe the relationship between increased demand for health service and the increased need for manpower and facilities.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Manpower Needs

By 1975 allied health workers expected to total nearly 909,000 with a further increase to 1,066,000 by 1980.

Total Allied Health Manpower:	1967	1975	1980
1967 - at least baccalaureate	229,500	350,000	410,000
less than baccalaureate	424,000	559,000	656,000
Medical allied manpower			
Requirements:	336,500	-----	-----
Supply:	276,500	400,000	475,000
Dental allied manpower			
Requirements:	165,700	202,000	246,000
Supply:	137,000	139,000	151,000
Deficit:	28,700	63,000	95,000
Environmental health manpower			
Requirements:	20,000	35,000	50,000
Supply:	10,500	20,000	30,000
Deficit:	9,500	15,000	20,000
Mental health personnel			
Alcoholics Aide			
By 1975 over 2,000 such centers will be in operation throughout the country.			

Reference:

National Center for Health Statistics: Health Resources Statistics, 1965. PTSS Pub. No. 1509. Public Health Service, Washington, U.S. Government Printing Office, 1966.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Teacher Activity

- I. Select diagrams, charts, etc. or develop sketches to demonstrate the following problems of the health care system; or have student develop sketches demonstrating problems. (Refer to student activity.)
 - A. Manpower Shortage (refer to Content Outline), e.g., sketch showing one nurse trying to take care of ward of 25 patients.

OR

Manpower statistics
 1. Uneven distribution of manpower
 2. Inadequate staffing of facilities
 - B. Inadequate Facilities
 1. Inadequate numbers
 2. Uneven geographic distribution
 - C. Inefficient planning and duplication of services.
 - D. Inefficient utilization of resources.
 - E. Fragmentation of services.
 - F. Spiraling costs of health care.
- II. Discuss problems and possible solutions to the problems of the Health Care Delivery System. Student Activity - Problems of the Health Care Delivery System.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Student Activity

1. On the basis of your own experience, list what you consider to be the major problems of the health care system, (e.g., inability to see a doctor).
2. Examine the diagram in which different aspects of the health care system are shown. For each diagram list the problem(s) which you believe relate to the health care delivery system. Suggest ways of correcting that problem. (The instructor will give you an example.)
3. Prepare posters illustrating problems of the Health Care System such as: manpower shortage, overcrowding of facilities, duplication of facilities, fragmentation of service, etc.
4. Read one or more of the following articles from the Saturday Review. On the basis of your reading, list problems of the present health care system. Suggest ways of eliminating each problem.

Saturday Review, April 22, 1970. "Health Care Rx for Change," "The Healthiest Nation Myth," "Where Doctors Fail," "Solving the Doctor Shortage," "The Case for National Health Insurance."

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Manpower Needs

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Give the students the two simple exercises in arithmetic using health manpower figures.	Work several problems on the health manpower needs.	Should be able to perform simple arithmetic procedures: a. Addition b. Averages c. Percentages
Discussion: manpower shortages.	Discussion	Should be able to tell why it would be misleading to use only averages when discussing manpower needs in different states.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Manpower Needs

Activity: Simple Arithmetic

Let us examine the average numbers of doctors/100,000 people for five different States:

California	161
New York	199
Massachusetts	181
Alabama	75
Mississippi	69

The average for all fifty States in the U.S. is 131 doctors for 100,000.

1. Take the average of only Alabama and Mississippi.

ANSWER: 72/100,000

2. Now average the figures for Massachusetts and New York.

ANSWER: 190/100,000

3. a. Does the national average of 131/100,000 give an accurate picture of medical care in each individual State?
b. What can you conclude about medical care in Alabama and Mississippi, as compared to that in New York and Massachusetts?

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Manpower Needs

Activity: Simple Arithmetic

Manpower figures show shortage of health workers continuing. For example:

1. 1971 - there are 621,000 registered nurses, yet there is a need for 690,000 registered nurses. How many nurses are needed right now?

ANSWER: 69,000 RN's

2. If there are 621,000 nurses and the need is for 690,000, in terms of percent:

- a. What percentage of the total number needed do we have?

ANSWER: 90%

- b. What percentage do we lack?

ANSWER: 10%

What percentage of 69,000 is 621,000?

$$? \% \cdot 690,000 = 621,000$$

$$X \% \cdot 690,000 = 621,000$$

$$\frac{X}{100} \cdot 690,000 = 621,000$$

$$X \cdot 6,900 = 621,000$$

$$X \cdot 69 = 6,210$$

$$X = 90$$

90%

If we already have 90%, then we lack 10%

3. The present number of non-college health workers is 276,000; 60,000 more are needed. In 1975 there are expected to be 400,000 health workers and 88,000 more will be needed.

- a. What is the total number of non-college health workers needed now?

ANSWER: 336,000 health workers

- b. Needed in 1975?

ANSWER: 488,000 health workers

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Health Insurance

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Insurance Brochures 1. Reading Assignment 2. Panel Discussions	Insurance Brochures 1. Assigned Activity on Health Insurance 2. Health Insurance Exercise	Should be able to list and briefly describe the main types of health insurance plans presently available in the United States Should be able to select a health insurance plan in which he would enroll as a potential employee. Should be able to describe briefly the major types of national health insurance plans that are proposed in the United States.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Health Insurance

Teacher Activity

- I. Distribute brochures describing the following health insurance plans which employees receive on the job.

Blue Cross

Blue Shield

Kaiser Foundation Medical Plan

Other plans in which students and/or their families may be involved.

Students should read brochures and list major types of coverage offered by each, paying particular attention to the differences between a prepaid comprehensive health plan such as Kaiser Foundation, and a plan such as Blue Cross.

Each student should select the plan in which he would enroll as an employee. The student should be able to discuss the reasons for his selection.

- II. Panel Discussions: (Optional)

Topics:

1. Pros and cons of a prepaid comprehensive health insurance plan such as that offered by Kaiser Foundation versus a plan such as Blue Cross.

2. National Health Insurance Plans

Nixon Plan - National Health Insurance

Standards Act - Family Health Insurance Plan

Kennedy Plan - Health Security Act

American Medical Association Plan - "Medicredit" or any of the other proposed plans.

Student research is required to prepare for panel presentation.

Students can bring in their own references and/or the instructor can bring in material.

Research can also be done in the library. Recent periodicals would be the best source.

Suggested reference: "National Health Insurance," from Perspective, the Blue Cross Magazine, First Quarter, 1971.



INDIVIDUAL

AND FAMILY



HEALTH PLAN



**CALIFORNIA
BLUE SHIELD**

CALIFORNIA PHYSICIANS' SERVICE

**A
BLUE
CROSS
HEALTH
PLAN**



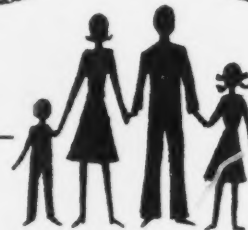
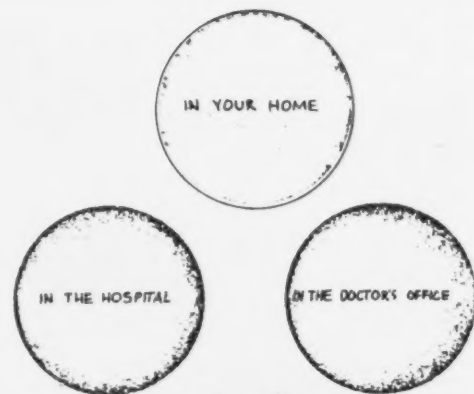
**FOR
LOS ANGELES
COUNTY
EMPLOYEES AND
THEIR DEPENDENTS**

*Sponsored by the
BOARD OF SUPERVISORS*

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COUNTY DEPARTMENT
OF PERSONNEL*

EFFECTIVE NOVEMBER 1, 1968

Medical & Hospital Benefits



FOR YOU AND YOUR FAMILY

1515 NORTH VERMONT AVENUE, LOS ANGELES, CALIF. 90027

Telephone: (213) 663-8411

GROUP MEMBERSHIP

**Subscriber coverage "A"
Dependent coverage "A"**

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Health Insurance

- I. As an employee of a hospital you must select a health insurance plan in which to enroll yourself and your family. You are given the following brochures:

Blue Cross

Blue Shield

Kaiser Foundation Medical Plan

Which plan would you select?

List the reasons why you selected the plan and why you did not select an alternate plan.

II. Panel Discussions: (Optional)

Topics: 1. Pros and cons of a prepaid comprehensive health insurance plan such as that offered by Kaiser Foundation versus a plan such as Blue Cross.

2. National Health Insurance Plans

Nixon Plan - National Health Insurance Standards Act

Family Health Insurance Plan

Kennedy Plan Health Security Act

American Medical Association "Medicredit" or any of the other proposed plans.

Student research is required to prepare for panel presentations.

Suggested Reference: "National Health Insurance" from Perspective, the Blue Cross Magazine, first quarter, 1971.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Student Evaluation

Teacher Key

A. Health Insurance

1. Check the plan you believe provides the best comprehensive care, including such preventive care as yearly check-ups.

Blue Cross

Blue Shield

Kaiser Foundation Medical Plan

2. Check those plans which are privately sponsored health insurance.

Circle those plans which are government sponsored.

Medicare

Blue Cross

Blue Shield

Kaiser Foundation Medical Plan

Medi-Cal

3. Check the insurance plan designed to provide health care for those 65 years and over.

Blue Shield

Medicare

Medicaid

4. Check following new idea for comprehensive medical care for all:

Blue Shield

Medicaid

National Health Insurance Plan

Kennedy Health Security Act

B. Components of the Health Care System

1. As an individual in your community who knows where a person can go if he has a certain health problem, where would you send these people for help?

- a. A 13-year old girl who think she has gonorrhea.

Free Clinic, Adolescent Clinic, outpatient clinic of hospital, public health clinic, neighborhood multipurpose health care, private medical doctor. Any of the above is correct.

- b. A 20-year old boy who suspects he is having an appendicitis attack.

Hospital, emergency room of hospital, possibly to his doctor, if immediately available.

- c. Your aunt who can no longer take care of your 80-year old grandmother because she now requires care on a 24-hour basis.

Extended care facility - nursing home.

- d. A friend who has mental problems:

Community mental health clinic

- e. A boyfriend who is strung out on drugs and wants help:

Youth clinic, free clinic, drug clinic, mental health clinic, outpatient clinic of hospital.

- f. A man who wants to investigate health problems that members of his family may have. However, he cannot afford to take them to a private medical doctor.

Multipurpose Health Center

- g. A mother whose son has just fallen off a bike and thinks he may have sprained or broken an ankle.

Hospital emergency room, PMD

2. Not all people get good medical care. List at least three reasons why this is true.

Manpower shortage (uneven geographic distribution of health power).

Shortage of facilities (uneven geographic distribution of health care facilities).

Inefficient planning and duplication in services

Inefficient utilization of available resources

Fragmentation of services

High cost of health care

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Components and Problems

Test

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Administer student test on Components and Problems of The Health Care System to determine whether the student has met the behavioral objectives of these parts. Score the testing using the key.	Take the test to determine whether you have met the behavioral objectives specified.	Should be able to complete the test accurately.

COMPONENTS AND PROBLEMS OF HEALTH CARE SYSTEM

Student Evaluation

A. Health Insurance

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Blue Shield

Kaiser Foundation Medical Plan

2. Check those plans which are privately sponsored health insurance.

Circle those plans which are government sponsored.

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Blue Cross

Blue Shield

MediCal

Kaiser Foundation Medical Plan

3. Check the insurance plan designed to provide health care for those 65 years and over.

Blue Shield

Medicare

Medicaid

4. Check following new idea for comprehensive medical care for all.

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Medicaid

National Health Insurance Plan

Kennedy Health Security Act

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 - a. A 13-year old girl who thinks she has gonorrhea.
 - b. A 20-year old boy who suspects he is having an appendicitis attack.
 - c. Your aunt who can no longer take care of your 80-year old grandmother because she now requires care on a 24-hour basis.

- d. A friend who has mental problems
 - e. A boyfriend who is strung out on drugs and wants help.
 - f. A man who wants to check out health problems that members of his family may have. However, he cannot afford to take them to a private medical doctor.
 - g. A mother whose son has just fallen off a bike and thinks he may have sprained or broken his ankle.
2. Not all people get good medical care. List at least three reasons why this is true.

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MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 5: The Student and His Health Community

PURPOSE

To prepare the student to be a knowledgeable consumer of his community health care services.

To acquaint the student with health care situations in his own community in which manpower shortages exist.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 5: The Student and His Health Community

OBJECTIVES

The student should be able to:

1. Name the types of facilities available in his community.
2. Identify a community need.
3. Describe the relationship between manpower shortage and needed services.
4. State the role of a community action group.

MODULE I
ORIENTATION TO THE HEALTH CARE SYSTEM

Unit 5: The Student and His Health Community

PROCEDURE

The activity, The Student and His Health Community, summarizes to a large extent the relationship of education, manpower, and community action groups with the functioning of the health care system.

For our students to become knowledgeable consumers they should know their community, its resources, and how to improve them.

A health profile of the community in which the students live should be assembled by the instructor. This information can be obtained from the Health Educator in the local Health Department.

If a Health Educator is not available, the Health Department registrar should have most of the statistics. An interview with a Public Health nurse could provide knowledge of community problems and facilities. On pages 168-175 are examples of Community Profiles based on location of high schools.

The health profile is used as the basis of role-playing activities in which the students confront the problems and services of their community. This unit should involve approximately one week of classroom time.

Health and the Community

Teacher Activity

Organizing class into a community.

Materials needed:

Report containing a health profile of the community as it actually is in terms of its population, major health problems, and resources, public and private.

List of ten health problems.

- A. Four students are selected to represent community health leaders. These students will have to be familiar with the community based on information from the health profile. The teacher will review the material with the four students.

As community leaders, they will be able to fulfill three requests for needed health services from the community.

- B. The rest of the class represents the community.

1. Form groups of two or three--each group is to specify:
 - a. What it feels is an important health problem in the community.
 - b. What is needed to combat the health problem--facilities, education, personnel.If a group is having trouble choosing a health problem, it can select one from the prepared list.
2. Each group will make a presentation to the community leaders.
 - a. Explain the importance of the health problem.
 - b. Request the needed service to help alleviate the problem.
3. These requests are listed on the blackboard. The community leaders balance their requests against what is already available.
 - a. Ignorance of available resources will become obvious; reasons for this ignorance must be explored.
 - b. Knowledge of a facility might result in rejected service; examine barriers to use of existing services, i.e., transportation, financial, improper treatment by facility staff, language, etc.

4. Stress how all requested community services reflect need for health manpower.
- C. Negotiation for requested services between health leaders and community. Since the committee of four can only grant three requests, the community will have to:
 1. Set priorities.
 2. Work out problem created by different viewpoints. The profile contains list of health problems designated as major by professionals. The community's list may not coincide.
- D. If the community feels the committee has rejected an important request, what alternatives are available to the community?
 - role of community action.
 - how does community group operate?
 - other strategies for obtaining necessary service, i.e., going to the city council, health councils.

Various Health Problems

1. Drugs
2. Prenatal care
3. Alcoholism
4. Family planning
5. Mental health
6. Venereal Disease
7. Medical Care
 - a. Obtaining it
 - b. Paying for it
8. Tuberculosis
9. Cancer
10. Heart Disease

COMMUNITY PROFILE OF THE NORTHEAST HEALTH DISTRICT

Lincoln High Area

Vital Statistics for Northeast Health District

Ten Leading Causes of Death - 1965

<u>Cause</u>	<u>Number</u>
1. Diseases of the heart	983
2. Malignant neoplasms	393
3. Vascular lesions affecting the central nervous system	310
4. Accidents	149
5. Influenza and pneumonia	85
6.5 Diseases of early infancy	78
6.5 Cirrhosis of the liver	78
8. General arteriosclerosis	54
9. Suicides	43
10. Diabetes Mellitus	38

Death Rate - Mortality Rate

Birth Rate

<u>Year</u>	<u>Numbers of Deaths</u>	<u>Rate per 1,000 pop.</u>	<u>Number of live births</u>	<u>Rate per 1,000 pop.</u>
1965	2,565	10.1%	6,741	26.6%
1966	1,919	9.4%	5,467	26.8%
1967	1,815	9.1%	5,124	25.6%
1968	1,776	8.9%	5,463	27.4%
1969	1,835	9.1%	5,509	27.4%

Reportable Diseases - the ten most reported diseases for Northeast Health District

	<u>Number of Cases</u>				
	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
1. Epilepsy	211	161	213	NR	NR
2. German Measles	NR	NR	84	40	38
3. Gonorrhea	364	364	437	560	654
4. Hepatitis	154	187	230	256	172
5. Measles	76	318	68	16	26
6. Mumps	134	79	261	282	51
7. Scarlet Fever	45	69	84	65	48
8. Shigella Infections	83	202	213	171	119
9. Syphilis	333	338	332	316	363
10. Tuberculosis (puimonary)	85	114	78	74	61

NR - not reported that year

COMMUNITY PROFILE OF LINCOLN HEIGHTS

Lincoln High Area

1. Population

a) Size and density:

<u>1960</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
31,396	30,659	29,875	30,875

b) Age and sex distribution:

<u>AGE</u>	<u>PERCENT OF TOTAL POPULATION</u>
14 and Under	27.0%
15 - 24	13.2%
25 - 34	14.3%
35 - 44	12.8%
45 - 54	11.9%
55 - 64	9.8%
65 - 74	6.7%
75 - 84	3.5%
Over 85	.8%

c) Ethnic composition: (in percentage of total 1960 population)

Spanish surname:	73.1%
Negro:	2.5%
White:	22.2%
Other:	2.2%

d) Economic levels: (percentage of all families in 1959)

<u>Yearly Income</u>	<u>Percentage of Population</u>
Under \$1,000	4.8%
\$1,000 - 1,999	6.9%
2,000 - 2,999	9.6%
3,000 - 3,999	11.0%
4,000 - 4,999	12.7%
5,000 - 5,999	15.3%
6,000 - 6,999	11.6%
7,000 - 7,999	7.8%
8,000 - 8,999	6.7%
9,000 - 9,999	4.5%
10,000 - 14,999	7.6%
15,000 - 24,999	1.1%
25,000 - and above	0.4%

2. Other relevant information

The following are the most important problem areas according to a community study done by the East Los Angeles Task Force:

- a. The public health system of medical care
- b. Alcoholism
- c. Inadequate medical services for senior citizens
- d. Inadequate number of Mexican-American and bilingual personnel in the health professions
- e. Inadequate mental health programs
- f. Lack of programs and services for the mentally retarded
- g. Inadequate dental care facilities and lack of dental health education
- h. Inadequate hospital and emergency care
- i. Health problems of the youth - VD, Narcotics, Alcoholism, problem pregnancies, nutrition
- j. Inadequate service and lack of understanding and sensitivity to the problems of the Mexican-American on the part of the Department of Public Social Services (DPSS)

JORDAN HIGH COMMUNITY PROFILE

South Health District

1. Population

a. Size: 10.3 square miles

Density: 14,000 people/square mile

b. Age and Sex Distribution

<u>Age</u>	<u>Male</u>	<u>Female</u>
Under 5	11,500	13,000
5 - 9	11,500	11,500
10 - 14	9,000	8,500
15 - 19	6,000	6,500
20 - 24	4,000	6,000
25 - 29	4,500	5,500
30 - 34	4,100	5,400
35 - 39	44,200	5,300
40 - 44	4,200	5,300
45 - 49	3,700	4,100
50 - 54	3,100	3,700
55 - 59	2,400	2,900
60 - 64	2,500	2,600
65 - 69	1,700	2,100
70 - 74	1,200	1,500
75 - 79	800	900
80 - 84	500	600
85+	250	310

d. Economic Levels - Family Income for 1969

<u>Income</u>	<u>Number</u>
Under \$1,000.	1,700
1,000 - 2,999	2,800
2,000 2,999	4,300
3,000 - 3,999	4,800
4,000 - 4,999	4,500
5,000 - 5,999	4,800
6,000 - 6,999	4,700
7,000 - 7,999	2,300
8,000 - 8,999	2,300
9,000 - 9,999	1,650
10,000 - 14,999	2,500
15,000 - 24,999	410
25,000 up	10

c. Ethnic Distribution

White	23,000
Negro	123,000
Mexican	12,000
Others	10,000

2. Major Health Problems
(Reportable Diseases)

1. Gonorrhea	3,270 cases in 1969
2. Syphilis	336
3. Hepatitis	93
4. Tuberculosis	59
5. Mumps	57
6. Shigella	38
7. Meningitis	32
8. Salmonella	29
9. Pertussis	28

b. Deaths in 1969 According to Age

Under 28 days	59
Over 28 days-under 1 yr.	34
1 - 14 years	43
15 - 24 years	64
24 - 44 years	155
45 - 64 years	337
65+	464

a. Major Causes of Death - Reportable Diseases

1. Pneumonia
2. Influenza
3. Tuberculosis

Other

1. Coronary
2. Cerebral Hemorrhage
3. Cancer

3. Public and Private Health Facilities

- a. Compton Medical Aids - private
1301 North Willowbrook Avenue
Compton, California
- b. South Health Center - public
1522 East 102nd Street
Los Angeles, California
- c. Bon Air Hospital - private
250 West 120th Street
Los Angeles, California
- d. Broadway Hospital - private
9500 South Broadway
Los Angeles, California
- e. Mercy Convalescent Hospital - private
9411 South Central Avenue
Los Angeles, California
- f. South Central Multipurpose Center -
public
2015 East 103rd Street
Los Angeles, California
- g. Kedren Psychiatric Clinic - public
7760 South Central Avenue
Los Angeles, California
- h. Florence Industrial Surgery - private
1557 East Florence Avenue
Los Angeles, California
- i. Oak Park Community Hospital - private
369 West Manchester Avenue
Los Angeles, California
- j. Central City Community Mental Health
Center - public
4272 South Broadway
Los Angeles, California
- k. Watts Extended Health and
Family Planning Group Insurance -
public
8500 South Broadway Avenue
Los Angeles, California
- l. Good Shepherd Nursing Home - private
97th and Holmes Avenues
Los Angeles, California

4. Community Action Groups

- a. Watts Labor Community Action Committee
8501 South San Pedro Avenue
Los Angeles, California
- b. Expanded Nutrition Education Program for Youth
9110 South Central Avenue
Los Angeles, California

Train for Child Care and for Work at Martin Luther King Hospital

Nutrition Education - to understand the importance of food

HEALTH PROBLEMS IN THE NORTHEAST
LOS ANGELES HEALTH DISTRICT AS DISCUSSED WITH
THE PUBLIC HEALTH NURSES OF
THE NORTHEAST HEALTH CENTER

I. Barriers to Health

Health problems directly related to the fact that most of the residents of the Northeast Health District are living below the poverty level.

low income ⇔ tuberculosis, dysentery diseases, poor nutrition, etc.

II. Barriers to Utilization of Service

A. Many residents have entered the United States illegally.

1. They are not eligible for certain health services.
2. They are not eligible for Department of Public Social Services (DPSS).
3. They are very much afraid of being "discovered" and deported to Mexico.

B. Many of the Mexican-Americans prefer to return to Mexico for health care (especially for X-rays and TB tests).

1. They can communicate better with the Spanish-speaking physician or nurse in Mexico.
2. They feel more at ease being treated by persons of their own culture.
3. They cannot get sensitive and personal care at many of the health facilities in their community; White Memorial Hospital Outpatient Clinic requires Spanish-speaking patients to bring their own interpreters in order to get service.

**Health Facilities in the Northeast
and East Los Angeles Health Districts**

<u>General Hospital with Maternity</u>		<u>Approved Capacity</u>	<u>Type</u>
1.	Bella Vista Community Hospital 5425 E. Pomona Los Angeles, 90022	61	Private Proprietary
2.	City View Hospital 3711 Baldwin Street Los Angeles, 90031	53	Private Non-Profit
3.	Community Hospital of Los Angeles 4081 East Olympic Blvd. Los Angeles, 90023	89	Private Proprietary
4.	East Los Angeles Doctor's Hospital 4060 Whittier Los Angeles, 90023	97	Private Proprietary
5.	Lincoln Hospital 443 S. Soto Street Los Angeles, 90033	49	Private Non-Profit
6.	Los Angeles County - USC Medical Center 1200 N. State Street Los Angeles, 90033	2105	County
7.	White Memorial Medical Center 1720 Brooklyn Avenue Los Angeles, 90033	304	Private Non-Profit

<u>General Hospital Without Maternity</u>		<u>Approved Capacity</u>	<u>Type</u>
1.	Belevedere Hospital 127 South Utah Street Los Angeles, 90033	28	Private Proprietary
2.	Sante Fe Memorial Hospital 610 South St. Louis Los Angeles, 90023	189	Private Non-Profit
<u>Maternity Hospital</u>		<u>Approved Capacity</u>	<u>Type</u>
1.	Booth Memorial Hospital 2670 Griffin Avenue Los Angeles, 90031	20	Private Non-Profit
2.	Santa Marta Hospital and Clinic 326 N. Humphreys Avenue Los Angeles, 90022	10	Private Non-Profit
<u>Nursing and Convalescent Homes</u>		<u>Approved Capacity</u>	<u>Type</u>
1.	Buena Ventura Convalescent Hospital 1016 South Record Street Los Angeles, 90023	99	Private Proprietary
2.	East Los Angeles Convalescent Hospital 101 South Fickett Street Los Angeles, 90033	71	Private Proprietary
3.	Hollenbeck Home for the Aged and Convalescent 573 South Boyle Avenue Los Angeles, 90033	84	Private Non-Profit
4.	Jewish Home for the Aged 325 South Boyle Avenue Los Angeles, 90033	107	Private Non-Profit

<u>Nursing and Convalescent Homes (cont.)</u>		<u>Approved Capacity</u>	<u>Type</u>
5.	Keiro Nursing Home 2221 Lincoln Park Avenue Los Angeles, 90031	87	Private Non-Profit
6.	Lincoln Convalescent Hospital 3619 Mission Road Los Angeles, 90031	104	Private Proprietary
7.	Metropolitan Convalescent Hospital 1904 Bailey Street Los Angeles, 90033	59	Private Proprietary
8.	Mission Manor Nursing Home 3609 Mission Road Los Angeles, 90031	165	Private Proprietary
9.	Valcrest Sanitarium 2457 Endicott Street Los Angeles, 90032	25	Private Proprietary

No establishment for handicapped persons

<u>Clinic</u>	<u>Type</u>
1. Plaza Community Center Clinic 3700 East Princeton Los Angeles, 90023	Private Non-Profit
2. Santa Marta Hospital and Clinic 328 N. Humphreys Avenue Los Angeles, 90022	Private Non-Profit
3. Southern Pacific Memorial Clinic 2120 East Sixth Street Los Angeles, 90023	Private Proprietary

Home Health Agency

Type

1. Los Angeles County - USC Medical
Center Home Care Program
1200 North State
Los Angeles, 90033

County

2. VNA Los Angeles Northeast Branch
5327 Valley Blvd.
Los Angeles, 90032

Private
Non-Profit

Long Term Facility (Mental Hygiene)

Approved
Capacity

Type

1. El Sereno Manor, Inc.
4515 Huntington Drive
Los Angeles, 90032

106

Private
Proprietary

2. Lincoln Park Sanitarium
3601 N. Mission Road
Los Angeles, 90031

176

Private
Proprietary

3. Twentieth Century Manor
5055 Novgorod Street
Los Angeles, 90032

74

Private
Proprietary

no alcoholism hospital

no day center for mentally retarded

MAJOR HEALTH FACILITIES

South District - Florence Firestone Subcenter, 8019 Compton Avenue

1. South Health Center
1522 East 102nd Street
Contact: Clarence Hall
564-6801 Ext. 222

BOUNDARIES: 120th South; Vermont, West; Alameda, East;
Florence, North.

PREVENTIVE SERVICES: TB, VD, Dental, Family Planning, Sanitation Inspectors,
Prenatal Care, Immunizations, Health Education, Mental
Retardation

POPULATION: 150,000 (Predominantly Black, 14% Mexican-American)
60% are less than 25 years of age, average income \$3,900
2. South Central Multipurpose Health Services Center, 2051 E. 103rd
House of Uhuru; Drug Abuse Clinic
Contact: Doris Armstrong
564-7801

SERVICES: Family Centered Curative and Preventive Services,
24-hour emergency service; complete dental unit;
extended use of community workers (agents)

FUNDING: O.E.D. - Controlled by a Community Board of Directors

POPULATION: 32,000
3. Martin Luther King Jr. Hospital, 120 and Compton Avenue
(Under Construction - Projected completion April, 1971)
County Hospital - 700+ beds
4. Broadway Hospital, 9500 South Broadway
Contact: Mrs. Dee Russell 756-8145

Small Private Hospital
Health Fair - Multiphasic Screening September 26-27, 9 a.m. - 7 p.m.
5. Watts Extended Health & Family Planning Group, Inc.
8500 South Broadway
Contact: Dr. Herbert Avery
778-4356

SERVICES: Family Planning Clinic
Federally Funded
6. Kedren Community Mental Health Center
7760 South Central Avenue
Contact: Lurana Graham
587-9161

SERVICES: Out-patient Care; Day Treatment Center; Emergency Care;
Mental Health Consultation; Mental Health Education

7. Tucker Medical Building
1635 East 103rd Street

Contact: Dr. Edward Tucker
564-5826

Private Black Group Practice

SOUTHEAST DISTRICT

1. Central City Mental Health Center
4272 South Broadway

Contact: Mrs. Bessie Broome
232-2441

SERVICES: Emergency or walk-in treatment

2. Bridge Back - Drug Abuse Clinic
5505 South Central Avenue

Contact: Mr. Roy Evans
233-9455

SERVICES: Counselling, individual and group therapy

LABS: Miss Joan J. Tooley, Owner
Advance Medical Diagnostics Lab
8836 South Vermont Avenue
Los Angeles, California 90044

COMMUNITY GROUPS

1. South District Health Advisory Council
President - 1525 East 102nd Street

2. Florence-Firestone Health Council
President - Mrs. Agnes Clark
7606 Whitsett Avenue
Los Angeles, California 90001

3. Watts-Willowbrook Regional Medical Program Advisory Committee
Contact: Mrs. Caffie Greene
730 East 81st Street
Los Angeles, 90001
750-4213

Citizen Advisory Committee
Martin Luther King Jr. Hospital & Charles Drew Post Graduate Medical Society
Meet: Every 3rd Wednesday

4. Multipurpose Board of Directors
2051 East 103rd Street

Board Members: Mrs. Freitas Shaw Johnson
566-0255

170

Superstitions - Prenatal - Survey
Millie Morgan, Community Worker
Maternity and Infant Care Project (MIC)
Florence-Firestone Subcenter
583-6241 - Ext. 28

5. Welfare Planning Council
701 East 88th Place

Contact: Dr. Long
758-4189

Health Committee - President - Mrs. Winge

Narcotics & Dangerous Drugs Committee - President - Mrs. Purnell

Health Education Southeast Health Center
4920 Avalon Boulevard
Los Angeles, California 90011
231-2161

MODULE II

**MEETING THE NEEDS OF THE PATIENT THROUGH
THE HEALTH CARE SYSTEM**

MODULE II
MEETING THE NEEDS OF THE PATIENT THROUGH
THE HEALTH CARE SYSTEM

Introduction

Case presentations, based on selected health problems, are the vehicles for introducing the health occupations and their related tasks. Each case represents a unit of instruction.

The case begins with a profile which identifies the patient and provides a background of the problem for the student. The patient is then followed sequentially through his course of treatment (indicated in the schematic outline of the case). As personnel are introduced, their job skills and requirements are reviewed, and the tasks appropriate and feasible for the student to learn are taught in the classroom or the hospital. Only such information is introduced here as is required for understanding the tasks.

The student is provided with illustrations of the major sequential steps in the case. These serve as worksheets for studying the case.

This module is designed to fill approximately 24 weeks of the school year. It includes eight cases each of which, therefore, should last about three weeks.

OBJECTIVES FOR CASE PRESENTATIONS

1. The student will be able to name the health occupations involved in each case and will be able to diagram the career lattice associated with each occupation.
2. The student will be able to name the major tasks performed by each health professional as discussed in the case.
3. The student will be able to identify the equipment and instruments required for task performance as specified in the case.
4. The student will be able to perform the tasks as specified in the student activities of each case.

More specific objectives are listed in conjunction with each case.

CASE I
PHYSICAL EXAMINATION

Purpose

To introduce the student to the basic body systems and the ways they function.

To demonstrate how normal functioning of each system is essential for the maintenance of health.

To stress the importance of a periodic physical examination as a tool for maintenance of health.

To provide the student with the opportunity to handle equipment and instruments utilized in the physical examination and to perform specific tasks using this equipment.

Objectives

The student should be able to name the major tasks performed by each health professional discussed in the case.

The student should be able to perform tasks specified within the framework of the case.

The student should be able to state the reason for each part of the physical examination.

The student should be able to identify the equipment and instruments required for performing the physical examination.

CASE I
PHYSICAL EXAMINATION

Procedure

This case is intended as a brief introduction to the study of the anatomy and physiology of the body systems. Many areas are covered in greater depth and from a different viewpoint in subsequent cases.

Develop supplementary activities for students. (Since there will be only one piece of each type of equipment, it will be necessary for students to have additional projects on which they can work while the teacher is supervising use of equipment.)

The "Equipment Used in a Physical Examination," shown on the next page, may be used with an overhead projector or may be developed into a large poster for classroom use.

STETHOSCOPE

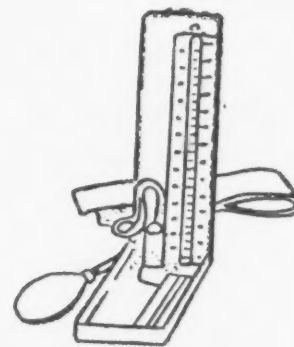


EQUIPMENT FOR PHYSICAL EXAMINATION

PERCUSSION HAMMER



FLASHLIGHT



SPHYGMOMANOMETER

OPHTHALMOSCOPE



TONGUE DEPRESSORS

OTOSCOPE



BLOOD PRESSURE CUFF

CASE I
PHYSICAL EXAMINATION

Health Problem:

Physical examination required for trying out for a school football team.

Facility:

Private medical doctor or school doctor.

Profile

John is a tenth grade student. To his delight, his physical education instructor recently suggested that he try out for the high school football team. First, he was required to obtain the consent of his parents, and then to have a physical examination performed by either a private doctor or the school doctor. John made an appointment with the school doctor for a check-up.

(1)

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Clerk	Completes heading on examination form and health history form using pen or typewriter.	Typing, spelling	
School Nurse (Registered Nurse)	Aids student in completing health history questionnaire.	Lay & Technical Definitions: Convulsion Loss of Consciousness Fainting Spells Epilepsy Paralysis Back Injury Shoulder Injury Knee Injury Asthma Heart Disease Hearing Loss Ruptured Ear Drum Hernia Absence of Kidney Absent or Undescended Testicle Mental Illness Communication Skills	Participation in athletics with any of these symptoms or illnesses could be harmful or dangerous. (It is not necessary to cover this in detail.)

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Student will fill in heading information on health history and examination forms. (using his own name)	Student will be able to fill in heading on health history and examination forms.	Athletic Health History Questionnaire - Los Angeles Unified School District
Student will complete athletic health history questionnaire and write definition of each term in his own words. <u>Class:</u> Each term will be defined in the process of completing the form. Students and instructor will participate in providing definition. Role Playing - Communication Skills	Student will be able to define each symptom simply and fill out form correctly.	<u>Dorland's Pocket Medical Dictionary</u> Role Playing Situation Rating Form

LOS ANGELES UNIFIED SCHOOL DISTRICT
HEALTH RESOURCE UNIT

ATHLETIC HEALTH HISTORY QUESTIONNAIRE

Name _____ Address _____

Birth Date _____ School _____ Grade _____

Please answer all of the following:

1. Have you had any serious illness, surgery, or injury in past 3 years? _____

If so, explain _____

2. Are you taking medication on a regular basis? _____ What? _____

Is there a medication you take for emergency use? _____ What? _____

3. Do you have diabetes? _____

4. Do you wear glasses? _____ Contact lenses? _____

5. Do you know any reason why you should not participate in all sports? _____

Have you had or do you now have any of the following?

	Yes	No		Yes	No
1) Convulsion			9) Asthma		
2) Loss of consciousness			10) Heart disease		
3) Fainting spells			11) Hearing loss		
4) Epilepsy			12) Ruptured ear drum		
5) Paralysis			13) Hernia		
6) Back injury			14) Absence of a kidney		
7) Shoulder injury			15) Absent or undescended testicle		
8) Knee injury			16) Mental illness		

To the best of my knowledge the foregoing are true statements.

Signature of parent or legal guardian Signature of Student

Telephone Number Date

[illegible]

PERSONAL HISTORY

[illegible]

PHYSICAL EXAMINATION

Teacher Activity

Role Playing - Communication Skills I & II

Select student participants, have audience (rest of class) rate students, using form.

I. Situation I

A. Problem - Filling out forms

B. Personnel - Receptionist and Patient

1. Receptionist

- a. Greet patient
- b. Find out what the patient wants
- c. Issue forms to be completed
- d. Assist as much as possible

2. Patient

- a. State reasons for coming
- b. Ask receptionist for help often
- c. Leave some diseases unmarked as if you did not understand the meaning.

II. Situation II

A. Problem - Orientation of patient

B. Personnel - Nurse and patient

1. Nurse

- a. Greet patient
- b. Look over form for any incomplete sections. Help patient complete the form.
- c. Explain to the nervous patient what you will be doing and what you are looking for and then perform the task.
 - (1) Take the height, weight, and blood pressure; check vision
 - (2) Record the results
- d. Introduce the patient to the doctor

2. Patient

- a. Nervous about the examination. First time for a physical.
- b. Make sure nurse explains diseases that you do not know.

PHYSICAL EXAMINATION

Student Activity - Role Playing I

Worksheet

Students will role play the following situation. Using the form below, the class will rate the student acting as receptionist.

I. Situation I

A. Problem - Filling out forms

B. Personnel - Receptionist and patient

1. Receptionist Role

- a. Greet patient
- b. Find out what the patient wants
- c. Issue forms to be completed
- d. Assist as much as possible

2. Patient Role

- a. State reason for coming
- b. Ask receptionist for help often
- c. Leave some diseases unmarked as if you did not understand the meaning.

Rating

Receptionist:

EXCELLENT	GOOD	POOR
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Comments:

CASE I
PHYSICAL EXAMINATION

Student Activity - Role Playing II

Worksheet

Students will role play the following situation. Using the form below, the class will rate the student acting as nurse.

I. Situation II

A. Problem - Orientation of patient

B. Personnel - Nurse and patient

1. Nurse Role

a. Greet patient

b. Look over form for any incomplete sections. Help patient complete the form entirely

c. Explain to the nervous patient what you will be doing and what you are looking for and then perform the task

(1) Take the height, weight, blood pressure and check vision

(2) Record the results

d. Introduce the patient and the doctor

2. Patient Role

a. Nervous about the examination. First time for a physical

b. Make sure nurse explains diseases that you do not know

Rating

Nurse with Patient:

EXCELLENT	GOOD	POOR
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Comments:

(2)

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
School Nurse (Aide)	Measures height and weight of patient, using scale and height attachment.	Use of scale Reading weight Recording weight on form in appropriate blank on examination form. Use of height measuring attachment Reading height. Recording result in terms of feet and inches in appropriate blank on examination form.	Height and weight in combination are used as indicators of nutritional status. Rate of weight gain or loss are symptoms which may have medical significance. Basic foods required each day. Caloric intake needed is determined by age, sex, activity, and climate. Effects of poor nutrition.

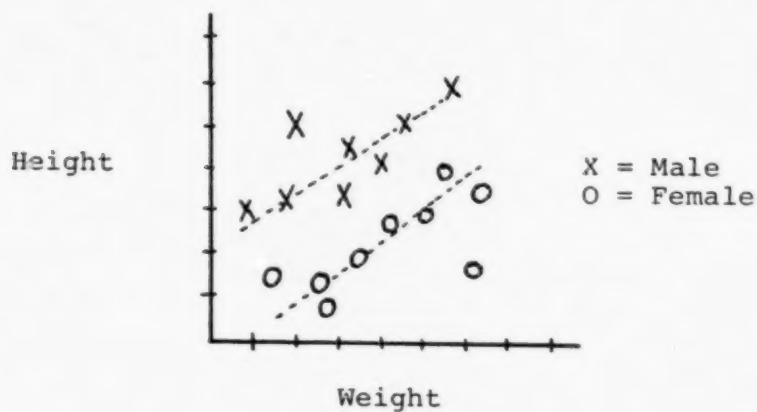
ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Instructor will demonstrate use of scale and height measuring attachment.	Student should be able to weigh and measure the height of an individual using this equipment.	Scale with height measuring attachment.
Instructor will demonstrate reading and recording of result.	Student should be able accurately to read and record weight and height.	Los Angeles City Schools Health Record Physical Examination Form.
Student will select partners and weigh and measure each other. Weight and height will be recorded on Physical Examination Form.	The student should be able to plot points on graph paper and draw the best line through these points.	Procedure for determining weight and height of patient.
Instructor will discuss height and weight norms using chart.	The student should be able to define a norm.	References: <u>Health Assistant</u>, Caldwell, E. & Hegner R. Delmar Publishers Inc., Albany, New York, 1969.
Instructor will demonstrate graphing techniques using heights and weights of students.	The student should be able to state what a "mean" is and will be able to calculate an average.	Chart: Height and weight norm. Student worksheet (attached).
Supplementary: Discuss body types: ectomorph; mesomorph; endomorph. Have student calculate median and mode of heights and weights. Discuss median and mode.	The student should be able to list the basic four food groups and discuss the importance of consuming these foods.	Board drawing of graphs.
Discussion and Film - The Basic Four Food Groups.	Reference: Math Text	Graph paper for students.
AND/OR	Reference on Nutrition: Shafer et al., <u>Medical-Surgical Nursing</u>, fourth edition, St. Louis: C. V. Mosby Company, 1967.	"Basis for Concern About Teenage Diet," by Gladys Eveson in <u>Journal of the American Dietetic Association</u>; 36:17-21, 1960.
Speaker - Basic Nutrition	Film - Four Food Groups (11 min., 1961).	Source: California State Department of Public Health, Berkeley, Calif.
Sources - The National Dairy Council	Charts, posters, and handouts, obtainable from The National Dairy Council, Chicago, Ill.	
- Nutritionist from the County Health Department		

PHYSICAL EXAMINATION

Student Activity

Graphing Heights and Weights

Students will record height and weight measurements on board by sex. Each student then plots on graph paper height against weight for males and for females.



After instructor demonstrates how to draw the best line through a series of points, draw the best line through the points indicating male height and weight; then do the same for females.

After the instructor discusses the meaning of a "norm," define "norm" in your own words.

PHYSICAL EXAMINATION

Student Worksheet

1. Record the sex, height, and weight of your partner.
 - a. Sex _____
 - b. Height _____
 - c. Weight _____
2. Record the information in question--on the board.
3. Using graph paper, plot height against weight of the males. Draw the best line through these points. Do the same for the females.
4. Define the mean. Compute the mean for the following:
 - a. Height of males _____
 - b. Height of females _____
 - c. Weight of males _____
 - d. Weight of females _____

OPTIONAL

5. Define median. Compute the median of a - d in question 4.
6. Define mode. Compute the mode for a - d in question 4.

Complete this chart:

		HEIGHT	WEIGHT
MALES	MEAN		
	MEDIAN		
	MODE		

		HEIGHT	WEIGHT
FEMALES	MEAN		
	MEDIAN		
	MODE		

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
School Nurse (or Trained Aide)	Vision check using Snellen Chart	Use of Snellen Chart Reading result Transformation of re- sult into score Recording score	Range of normal vision What vision test result indicates - e.g., what does 20/100 indicate? Farsightedness Nearsightedness Astigmatism Ophthalmoscope Health care facilities and occupations in the community which pro- vide vision screening, optometric and ophthal- mic examination, and follow-up care for de- tected problems.
	Hearing check using audiometer.	Use of audiometer Reading result of test Recording score Tone Threshold	Decibel Normal hearing Ear - Functional Anatomy How do we hear? Tone Health care facilities and occupations in the community which pro- vide hearing screening and follow-up care for problems.
Medical Doctor	Reviews Health History Question- naire	Lay and technical knowledge of symptoms. What presence of spe- cific symptoms may indicate - sign of illness?	

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Instructor will demonstrate: 1. Use of Snellen Chart 2. Reading result 3. Recording result Students will select a partner and test each other using Snellen Chart. The result will be read and then recorded on physical examination form. Using student scores as examples, instructor will discuss content under "Related Knowledge." Refer to Snellen Chart Screening discussion in Shafer, <u>Medical-Surgical Nursing</u>. Instructor or school nurse will demonstrate. 1. Use of audiometer 2. Determining result 3. Recording result	The student should be able to identify the Snellen Chart and state its use. The student should be able to test vision of an individual with Snellen Chart, and be able to read and record results. The student should be able to define terms listed under "Related Knowledge." The student should be able to identify an audiometer and describe its use.	Vision Screening Snellen Chart Modified Snellen Chart <u>Reference: Shafer et al., Medical-Surgical Nursing.</u> Physical Examination Form Audiometer Procedure - Audiometer Physical Examination Form Chart or diagram of the audiometer. Film: "Ears and Hearing" 10 min. - 1959. From California State Department of Public Health, 2151 Berkeley Way, Berkeley, California.
Performed under direction of nurse. Instructor will mention that doctor reviews health history prior to examination.		

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
<u>Instructor:</u> Diagram and show model of circulatory system - heart, artery, capillary, vein. Explain how blood flows in circulatory system. Heart--artery--capillaries--vein--heart.	The student should be able to state that blood pressure is the force of blood pushing against the walls of the blood vessels.	Plastic models of heart, artery, vein Diagrams of cross section of artery, vein. Diagrams of heart.
In cross section show elastic wall of artery, compare to venous wall. Explain why arterial pressure is taken.	The student should be able to state the main determination of blood pressure.	Sphygmomanometer, Stethoscope - instrument and diagram (attached)
Demonstrate contraction and relaxation of heart by opening and closing fist. Film: "The Heart - How It Works" or "The Doctor Examines Your Heart."	The student should be able to identify sphygmomanometer and stethoscope.	Film: "The Heart--How It Works"-- 11 min. - 1955 or "The Doctor Examines Your Heart"--11 min. - 1955. Source: Calif. State Dept. of Public Health, Berkeley, California.
Demonstrate how to measure and record blood pressure. Film: "Taking Blood Pressure."	The student should be able to perform steps required for taking blood pressure.	Film: "Taking Blood Pressure" - 16 min. - 1963. Source: Calif. State Dept. of Public Health, Berkeley, California.
<u>Student:</u> Select a partner; measure and record each other's blood pressure or perform a part of the task under supervision.	The student should be able accurately to read and record blood pressure.	Procedure for taking blood pressure, determining pulse pressure and taking pulse rate.
<u>Instructor:</u> Discuss and demonstrate pulse pressure.		
<u>Student:</u> Select partners - take pulse rate, record results	The student should be able to take pulse rate and describe how exercise affects it.	
<u>Instructor:</u> Introduce programmed instruction module.		<u>Reference:</u> Allied Health Professions Project, Division of Vocational Education, UCLA. "The Cardinal Signs: Temperature, Pulse, Respiration, Blood Pressure."
<u>Student:</u> Go through program and take tests.	The student should be able to complete the post tests relating to knowledge of the cardiovascular system (as specified within the text).	Lucile Wood, ed. to be published by Saunders, 1971.

(6)

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Medical Doctor (or nurse or nurse's aide)	Takes blood pressure using sphygmomanometer and stethoscope	Use of both instruments as they relate to measurement of blood pressure. Reading blood pressure Recording result on physical examination form. Systolic pressure Diastolic pressure	Blood pressure is the force of blood pushing against the walls of the blood vessels. Blood pressure measures force of blood flowing through blood vessel. Blood pressure determined by heart rate and blood flow through vessels. Determinants of blood pressure, e.g., emotional state, physical state, age, sex. Heart - structure & function Artery - structure & function Vein - structure & function Capillary - structure & function Heart Rate Contraction of Heart Relaxation of Heart Pulse Pressure Pulse Rate

PHYSICAL EXAMINATION

Student Activity

Blood Pressure & Pulse Rate

1. What is blood pressure?
2. What does it measure?
3. What determines blood pressure?
4. List as many factors as you can which affect blood pressure, for example, sex.
5. Define pulse pressure.
6. Define pulse rate.

7. Name the instruments used for taking blood pressure.
8. Define systolic pressure. Define diastolic pressure.
9. Practice taking blood pressure under supervision. Record results:

Systolic:

Diastolic:

Pulse Pressure:
10. Measure and record the pulse rate of your partner.
11. Have your partner exercise for 30 seconds. Measure his pulse rate again and record the result.

PULSE

The pulse can be felt wherever a superficial (beneath the skin) artery can be held against firm tissue, such as a bone. The pulse is felt most strongly over the:

1. Radial artery in wrist at the base of the thumb.
2. Temporal artery just anterior to or in front of the ear.
3. Carotid artery on the front side of the neck.
4. Femoral artery in the groin.
5. Apical pulse over the apex of the heart.

If the pulse is difficult to find in these areas (e.g., in infants and the obese or in the case of some cardiovascular diseases), the physician may order an apical pulse. The apical pulse is one that is taken by use of a stethoscope over the apex (tip) of the heart.

You may also be requested to take both a radial and an apical pulse to see if there is a difference in the rates. If there is a significant difference, it may indicate some disease of the person's blood vessels.

In general, the heart rate has an inverse relationship to the blood pressure and to the size of the individual, e.g., a rapid pulse usually accompanies a low blood pressure. The average pulse rate for a newborn is 130 to 140 beats per minute, while the average pulse rate for an adult at rest is 70 to 80 beats per minute. Exercise, fever, and digestion are some of the things that may cause an accelerated (faster) pulse rate. Because of the increase in metabolic rate in pregnancy, the pulse rate may be up to 100 beats per minute, which is generally considered the upper limit of normal during pregnancy.

A temporary increase in pulse rate may be due to fear, anger, physical exercise, anxiety, and elevated body temperature. A prolonged rapid rate may be indicative of hemorrhage or heart disease. A rapid pulse rate is called tachycardia. Some drugs, brain disorders, or cardiac diseases cause a slow pulse rate called bradycardia.

The strength of the pulse is as important as the rate of the pulse. With moderate pressure of the first two or three fingers on the vessels, a strong pulse would beat regularly and with good force. There are several ways in which a pulse may be described. Most of the common ways are:

1. Strong and regular: even beats with good force.
2. Weak and regular: even beats with poor force.
3. Irregular: both strong and weak beats occur within a minute.
4. Thready: generally means it is of weak force and irregular.

In taking a pulse, you are interested in the RATE of the beats (the number per minute), the FORCE of the pulse beat (strong or weak and regular or irregular), and the RHYTHM of the beats (normal rhythm has the same interval between the beats).

What does your own pulse feel like? Place your first two fingers over your radial artery with enough pressure to feel your pulse. How does it feel?

A. Equipment Used in Measuring Pulse

For taking all pulses you will need a watch with a secondhand, a pad, and a pen.

For taking an apical pulse you will need a stethoscope in addition to the other items. A stethoscope is an instrument used to detect and convey the sounds produced in the body (i.e., heart, lung, etc.). Ordinarily it consists of "Y"-shaped rubber tubing connected to a plastic or metal ear piece at the top of the "Y" and either a flat disc (or cone) diaphragm at the bottom of the "Y". The ear pieces fit snugly into the outer ear (or the external auditory meatus). The ear piece is usually bent slightly forward; this part goes toward the front of the ear. When using the cone-shaped body piece, the free end goes against the patient's skin.

In the disc-type instrument the free, flat diaphragm side lies against the patient's skin, and is placed over the tip (apex) of the heart near the midline of the chest to the left of the sternum (breast-bone).

Alcohol, aqueous zephiran, or a similar antiseptic solution should be used to cleanse the ear pieces before and after you place them in your ears, and to cleanse the disc or cone diaphragm to prevent the spread of infection. NEVER place a stethoscope back in the equipment area unless you have cleansed both the disc (cone) and ear pieces. You could transmit an ear infection to the next user, or contract an ear infection from a stethoscope that has not been correctly cleaned after use.

Important Steps

Key Points

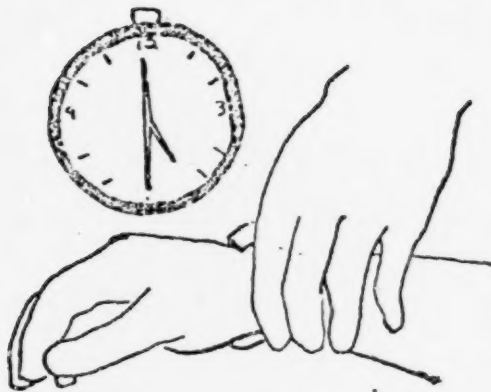
B. Measuring the Pulse (Radial, Temporal, Femoral)

1. Wash your hands, approach and identify the patient, and explain what you are going to do.

Of course, this is a part of taking the vital signs, so you will probably already have explained to the patient what you are doing. The pulse can be taken separately, however. See that the patient is settled in a comfortable supine position.

2. Place your three middle fingertips over the radial artery in the wrist at the base of the thumb.

Sometimes it is helpful to place the patient's arm comfortably across his chest while you are counting his pulse. Do not start counting immediately since the movement of the arm creates some exertion. Place your fingertips flatly and lightly on the radial artery. (Do not use the end of your fingers because you might poke or scratch the patient with your fingernails.) If you press too hard, you will obliterate (close off) the



artery and you will feel no pulse. Do not use your thumb to take the pulse; you will probably feel your own pulse in your thumb and not the patient's.

3. Count pulsations.



Count each beat for one full minute. (Use the second hand on your watch to observe the 60 seconds.) As you count, note the regularity or irregularity, and the strength of the beat. You may need to count for the second minute to be sure you counted correctly. Average pulse rates are:

For infants: 115-130 beats/minute.

For adults: 70-80 beats/minute.

For elderly: 56-60 beats/minute.

For adult female: 76-80 beats/minute

For adult male: 72 beats/minute

C. Measuring an Apical Pulse Rate

1. Wash your hands, approach and identify the patient, and explain what you are going to do.
2. Position the patient and obtain the stethoscope.

Gain his confidence. Explain that you can hear the pulse beat more accurately through the stethoscope than you can feel it with your finger.

The supine position is best for taking the apical pulse. (The head of the bed may be slightly elevated if it is more comfortable for the patient.) Obtain stethoscope from storage area. Wipe ear piece and diaphragm clean with antiseptic gauze (some are pre-packaged).

3. Drape patient.

Expose the chest area just enough to see the area over the apex of the heart. Fold top bedding to bottom of ribs. Fold patient's gown toward his head, exposing an area of about 12 square inches.

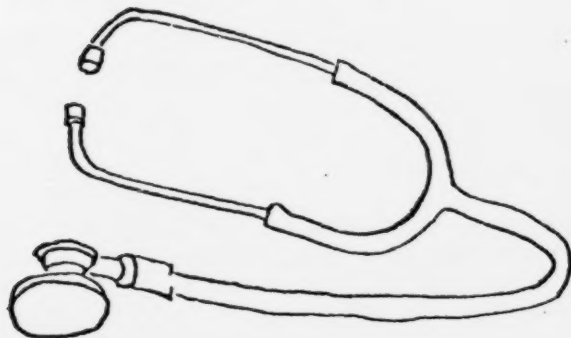
4. Warm diaphragm in your hand.

The metal is cold, and you must avoid startling the patient by placing a cold object on his chest (this would momentarily increase the heart rate). Place the diaphragm over the apex of the heart just to the left of the sternum (breast-bone).

5. Insert ear pieces into your ears.

If the ear pieces bend forward a bit, they should be placed in your ears so that the forward bend is anterior (in front of) the ear. (Some of the newer disposable stethoscopes have straight ear-pieces--much like earphones used on airplanes; in that case put them in your ear so they are as comfortable as possible.)

6. Listen for heart beat.



If you are unable to hear a beat, move the diaphragm around on the anterior, lower left quadrant of the left chest until you pick up the sound. Count the beats for a full minute (observe second hand on your watch for the correct time). Note the rate, rhythm, and the strength of the beat for recording later on the chart.

7. Remove stethoscope from ears and chest.

Straighten patient's gown and bed linen.

8. Wipe ear pieces and diaphragm with antiseptic wipe.

This will help prevent the spread of infection from worker to worker, or patient to patient. Replace stethoscope in storage area. Leave patient comfortable.

9. Record on patient's chart.

The apical pulse is usually recorded in the nurses' notes, i.e., 8 a.m. apical pulse rate was 60. Pulse was strong and regular. J. Jones, S.K.

Item 4: Blood Pressure (B/P)

Blood pressure may be defined as the pressure exerted by the blood on the wall of any vessel. The blood pressure is recorded by two numbers on the sphygmomanometer (blood pressure apparatus) representing the systolic pressure or the highest point reached by the contraction of the heart, and the diastolic pressure, which is the lowest point to which it drops between beats. Blood pressure varies with age, sex, altitude, muscular development, and fatigue. Generally it is lower in women than in men, lower in childhood and higher in advancing age.

Normal systolic pressure in adults is from 110 to 146 mm of mercury. The normal diastolic pressure range for adults is from 60 to 90 mm of mercury (mm is the abbreviation for millimeter, which is a unit measurement of length in the metric system: 1 mm = 0.0394 inch). The average systolic and diastolic pressures for infants are 58/40 mm (diastolic) to 80/50 mm (systolic).

Blood pressure is best measured by checking a large artery. The most commonly used is the brachial artery, which runs from the shoulder to the elbow.

A patient's position, emotional state, heart condition, vessel condition, amount of circulating blood, and the muscular strength of his heart are some factors that affect his blood pressure.

A. Equipment Used in Measuring Blood Pressure

A stethoscope, a sphygmomanometer, a pad, and a pencil are required for this procedure. The sphygmomanometer is a broad rubber bag or cuff about 6 inches wide and 24 inches long, covered with cloth. It has two rubber tubes extending from the rubber bag (or bladder): one tube connects to the rubber tubing extending from the base of the mercury column on the

sphygmomanometer and the other connects to a rubber bulb air pump. The cuff may be snapped, stuck, or tucked in to stay in place, depending on the kind your agency uses.

Important Steps

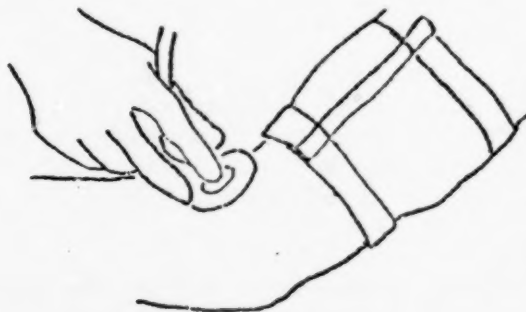
Key Points

B. Measuring Blood Pressure

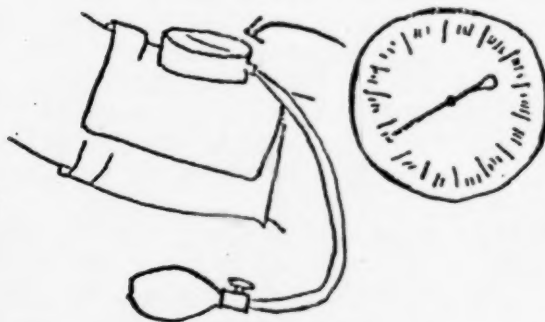
1. Wash your hands, approach and identify the patient, and explain what you are going to do.
2. Position patient and equipment.

Bring the equipment with you (stethoscope, sphygmomanometer, paper and pencil).

The patient is usually more relaxed when lying in the supine position, but the sitting position can also be used. Place his arm in a comfortable outstretched position on the bed or chair arm. Place B/P equipment on bedside stand near patient or on B/P standard at bedside. (Some agencies supply a wall-mounted B/P apparatus just above the head of the bed.) Positioning is important for accurate measuring.



3. Wrap B/P cuff around patient's arm.



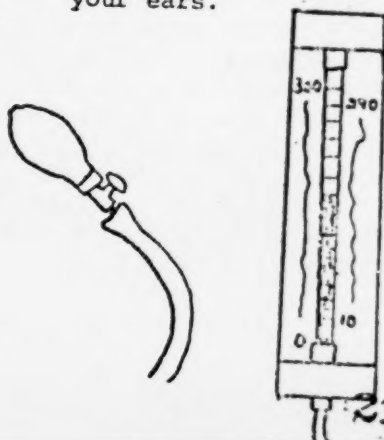
Either arm can be used. Place top edge of cuff 2 inches above elbow. Wrap cuff neatly around the arm so that each layer is directly on top. (If there is a gauge attached to the cuff, be sure that it faces you so you can easily read it.) Otherwise, place gauge on flat surface where you can clearly read the scale. Secure distal cuff end with tape, snaps or adhesive (whichever is used by your agency).

4. Attach tubes from B/P cuff.
5. Place stethoscope earpieces in your ears.

One tube goes to the air pump bulb, the other to the sphygmomanometer.

Ask the patient to make a fist, open and close it a couple of times, then hold the fist. With your left fingertips, feel for the brachial artery.

Stethoscope - an instrument used in auscultation (listening) to convey to the ear sounds produced in the body.



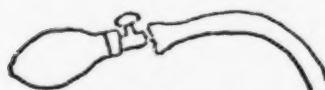
6. Place stethoscope (diaphragm) disc or cone over brachial artery.

The brachial artery is usually easy to find; it is located in the center of the anterior elbow area.



7. Close valve on air pump.

With right thumb and index finger turn the thumbscrew on the air pump bulb in a clockwise direction until it is tight.



8. Pump air bulb with right hand.

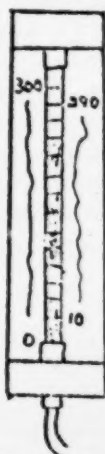
The rubber bag on the B/P cuff will inflate (fill with air). As you pump, the column of mercury will rise in the sphygmomanometer. Pump until it reaches 180 mm of mercury or about 10 degrees higher than the last beat you hear with the stethoscope. Tell the patient his hand might tingle a bit because the B/P cuff is temporarily constricting the flow of blood in the arm.

9. Open the valve on the air bulb. Release the pressure slowly to let the mercury column descend.

When taking the B/P you will have to watch the mercury column very carefully while you also listen to the sounds through the stethoscope.

10. Note the line at which the first beat is heard on the sphygmomanometer gauge.

As the mercury column descends (because air is released from the B/P cuff which was constricting the blood vessels in the arm), you will see the mercury begin to fluctuate as well as hear the pulse beat. Note the exact numerical line on the scale where you first hear a clear beat--this is the systolic reading. It is the point at which the greatest force is exerted by the heart and the greatest resistance is put forth by the arterial walls.



11. Continue to open the valve slowly until all air is removed.

As the mercury descends, the heart beat becomes louder and clearer, then almost immediately becomes soft and quiet. Note the number on the gauge as the last clear sound is heard--this is the diastolic reading. It is the point of the greatest cardiac relaxation. Agencies differ as to whether it is the last clear beat or the last beat that is heard that is recorded as the diastolic beat (check your agency procedure).

12. Repeat the process to check your accuracy.

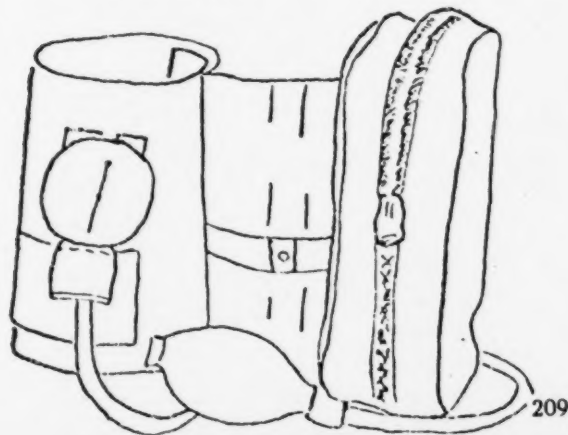
Pump air into B/P cuff above the 100 mm mark, as in Step 8. Proceed through succeeding steps, carefully checking the level on the B/P scale at which you hear the first and last pulse beats. (They should be the same as your first reading; if not, remove all air from B/P cuff and inflate it again for the third reading.) You must open the valve slowly, observe the mercury column closely, and listen to the pulse beats carefully. This part of the procedure is difficult and will take much practice. The first sound you hear (systolic pressure) is written as 130/ ; the last sound you hear (diastolic pressure) is recorded as /80. Thus the final and complete B/P would be recorded as B/P 130/80 on the patient's chart.

13. Remove cuff from patient's arm.

Remove stethoscope earpieces from your ears. Be sure that all the air is removed from the B/P cuff before taking it off.

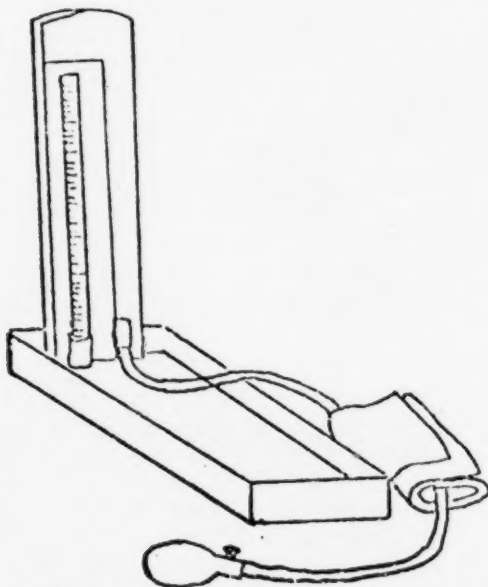
14. Fold B/P cuff and return it to storage.

Return folded cuff, stethoscope, and sphygmomanometer to storage area.



Remember to clean stethoscope pieces and stethoscope diaphragm with an antiseptic wipe before returning it to storage as an infection control precaution.

15. Record on patient's chart.



Describe any unusual aspects of B/P (extremely strong, weak or faint, very high or very low readings). If B/P is abnormal, report at once to the charge nurse; she will relay the information to the physician if indicated.

NOTE: It is difficult to obtain blood pressure readings on some people. When you have trouble, do not hesitate to ask for assistance or confirmation of your reading. Even after you have been in the business many years, you may still find the need to have assistance occasionally.

It is more important to get a correct reading to insure that the patient can be correctly treated than for you to be embarrassed about asking for assistance.

THE CARDIOVASCULAR SYSTEM

Teacher Activity

Supplementary

Instructor: Introduce programmed instruction module - The Cardiovascular System.

From: Instructional Manual
Medical Terminology for the Cardiovascular System
Minna Gosman, MPH
University of California, Los Angeles
Division of Vocational Education
Allied Health Professions Projects

Distribute the programmed instructional unit. Have students complete it.

THE HEART

1. Sections of the Heart

The terminology to be learned in this section is particularly significant because the words will occur over and over again in your medical transcription. Every medical specialty includes information regarding the circulatory system in examination and diagnosis. The causes of death in this country list cardiovascular disease as number one (over 50 percent); all other causes comprise less than 50 percent. For the thousands of people who receive proper medical care there is great hope of survival, whereas twenty years ago many of the heart and blood vessel disorders were considered hopeless.

You have just read two important words that form the basis for this section:

<u>Cardio</u>	=	heart
<u>Vascular</u>	=	blood vessel

Your heart is a powerful, long-working, hard-working pump which is the most intricately woven muscle in the body. Its main function is to pump blood to the lungs and to all the body tissues. It pumps an average of five quarts of blood in a minute so that by the time one reaches the age of seventy, his heart will have pumped 18 million barrels. This busy organ works twenty-four hours a day.

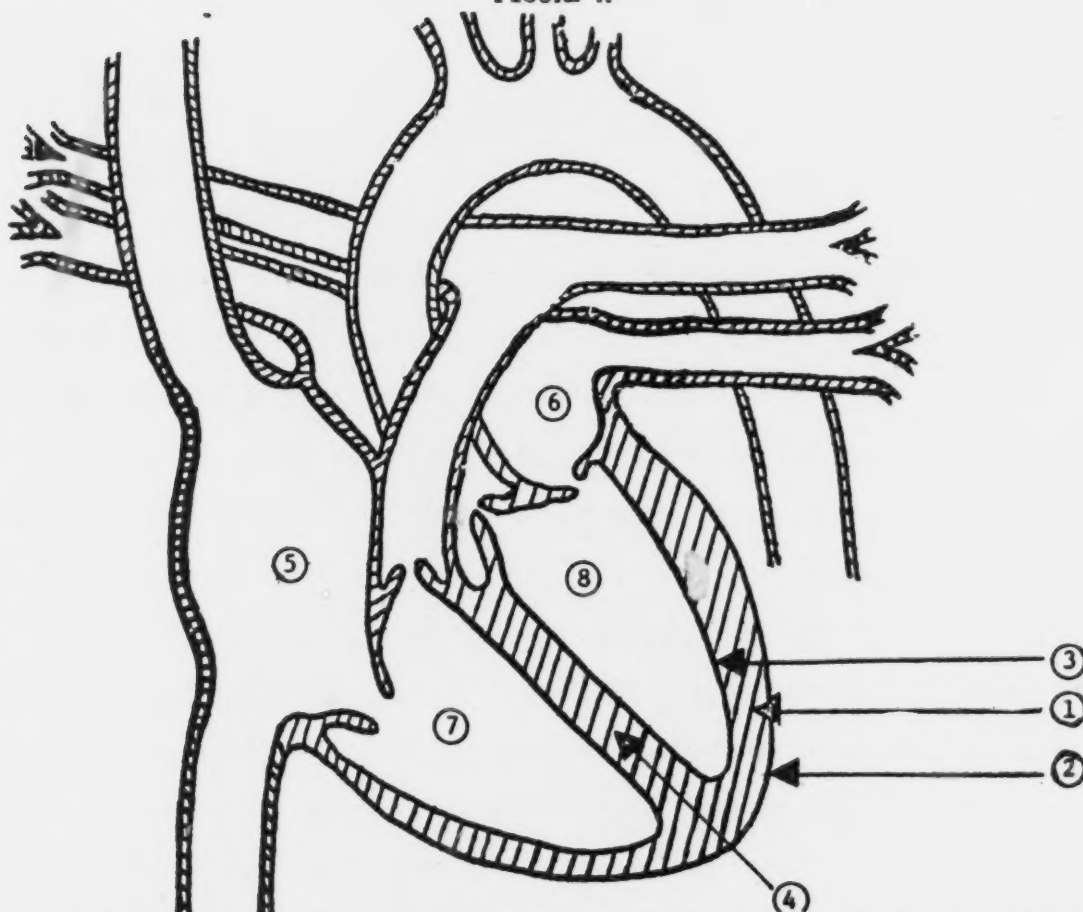
Let us look at the design of this remarkable and vital structure. (See Figure A.)* The heart, weighing well under a pound, is a hollow organ. The wall of the organ is a tough muscle called the myocardium (1). The cover that surrounds it like a fibrous bag is the pericardium (2). The lining is a thin, strong membrane, the endocardium (3). The wall which divides the heart cavity down the middle into the right side and left side is the interventricular septum (4). Each side of the heart is divided again into an upper chamber, right atrium or auricle (5) and left atrium or auricle (6), as well as a lower chamber, the right ventricle (7) and the left ventricle (8). Thus, there are four chambers. The blood which moves through them is regulated by a system of valves.

*View all figures as though you were standing behind them and viewing them on yourself.

GHT SIDE

LEFT SIDE

FIGURE A



A. Write the medical terms for the numbers in the figure next to the definitions below:

- | | | |
|----|-------|---|
| 1. | _____ | Muscular wall of the heart |
| 2. | _____ | Outer surface of heart |
| 3. | _____ | Inner surface of heart |
| 4. | _____ | Wall dividing right from left side of heart |
| 5. | _____ | Upper right heart chamber |
| 6. | _____ | Upper left heart chamber |
| 7. | _____ | Lower right heart chamber |
| 8. | _____ | Lower left heart chamber |

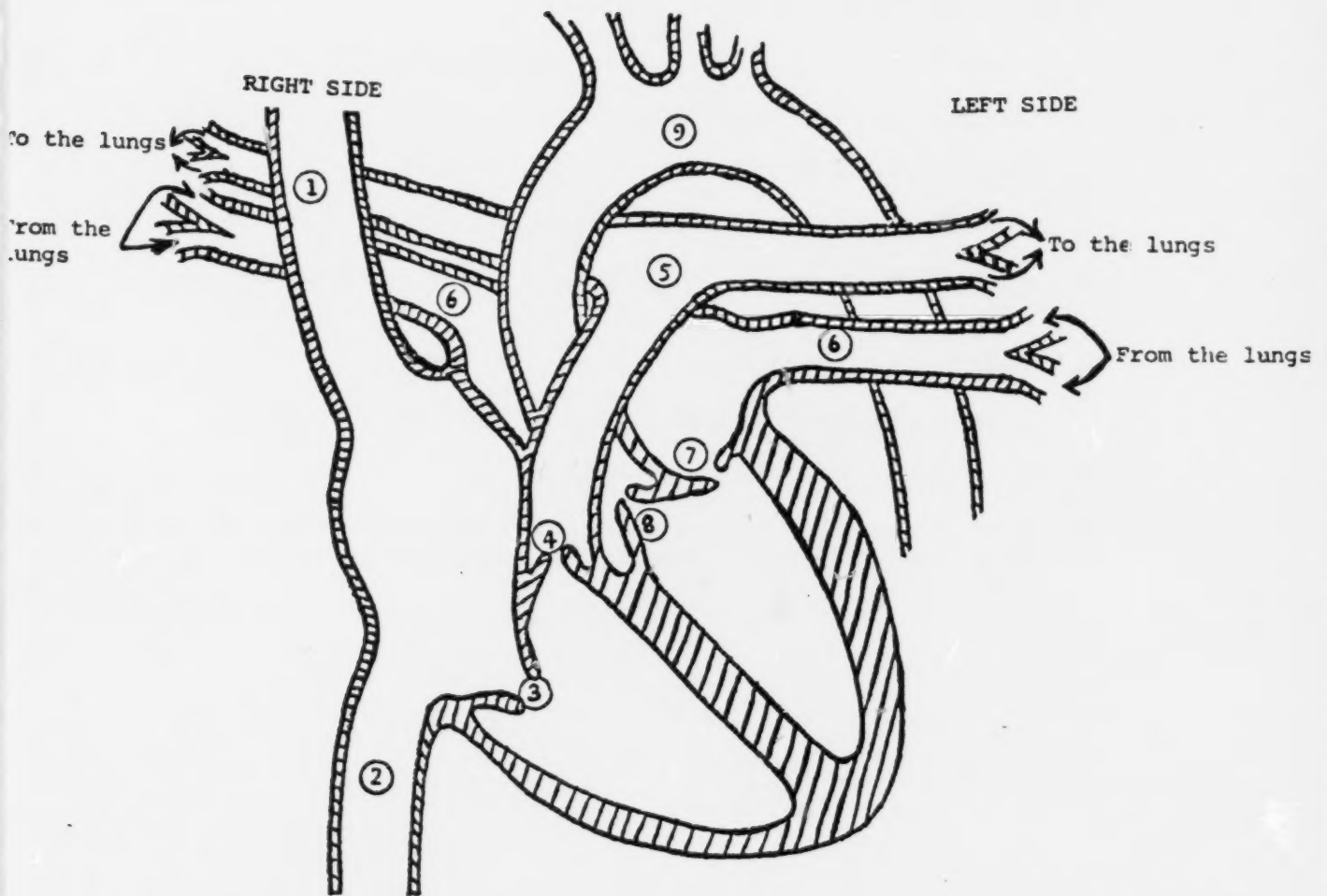
B. Write the word or word part in front of its meaning:

- | | | | |
|-------------|-----|-------|--|
| Inter | 1. | _____ | Pertaining to upper chamber of heart |
| Septum | 2. | _____ | Part of a word meaning heart |
| Cardio | 3. | _____ | Part of a word meaning outer covering |
| Atrial | 4. | _____ | Part of a word meaning an inner lining |
| Peri | 5. | _____ | Pertaining to a lower heart chamber |
| Endo | 6. | _____ | Pertaining to a blood vessel |
| Myo | 7. | _____ | A wall |
| Ventricle | 8. | _____ | Part of a word meaning muscle |
| Ventricular | 9. | _____ | Part of a word meaning between |
| Vascular | 10. | _____ | A lower heart chamber |

2. The Circulation of Blood in the Heart

The blood that is returning to the heart has circulated through the body cells; it is low in oxygen, carries waste products including food wastes and carbon dioxide, and is dark red in color. It is called venous blood. (See Figure B.) The blood enters the right atrium through two large veins. The upper vein is called the superior vena cava (1), the lower vein is called the inferior vena cava (2). From the right atrium, the blood pumps through the tricuspid valve (3) to the right ventricle. Here the blood enters a circulation cycle called pulmonary circulation. The blood leaves the heart, and passes through the pulmonary valve (4) to the pulmonary artery (5) to the lungs, where the blood discharges some of its carbon dioxide and takes up a fresh supply of oxygen. It then returns from the lungs through the pulmonary vein (6) as "reconditioned" blood. The blood has returned to the left atrium on through the mitral valve (7) to the left ventricle and is then pumped out through the aortic valve (8) into the aorta (9), the great trunk artery, to be distributed by smaller arteries to all parts of the body. It takes about one minute for the blood to make a complete circuit of the body after it leaves the heart and until it returns to the heart.

FIGURE B



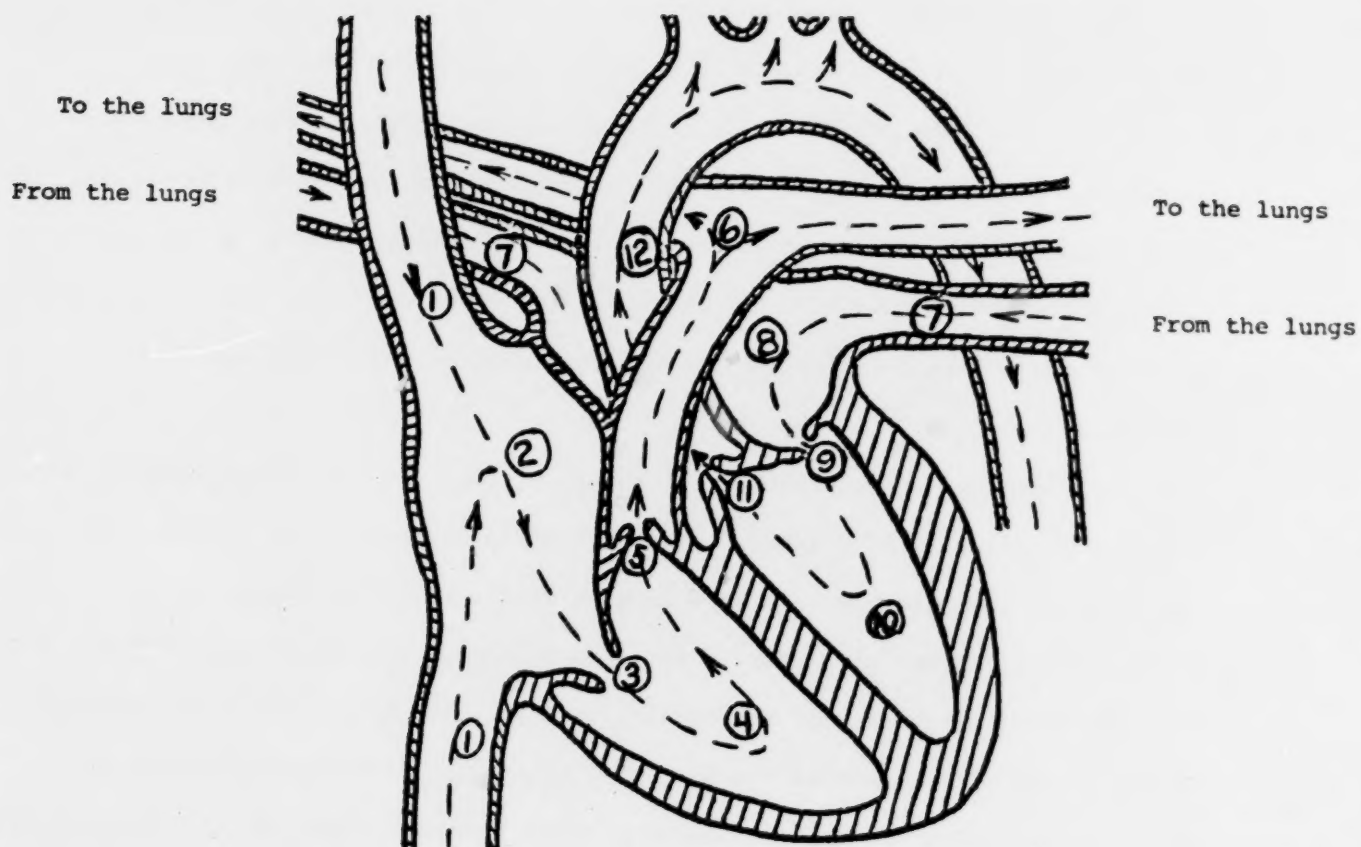
A. Write the terms for the nine parts of the heart which are numbered in the above figure.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

B. Answer by circling true (T) or false (F)

- | | | |
|--|---|---|
| 1. Venous blood is blood which flows through veins to the heart. | T | F |
| 2. Inferior is a word meaning upper. | T | F |
| 3. Venous blood enters the heart through the aorta. | T | F |
| 4. Reconditioned blood is freshly oxygenated. | T | F |
| 5. The blood that flows in the pulmonary artery is reconditioned blood. | T | F |
| 6. Superior means upper. | T | F |
| 7. A valve separates the right atrium from the right ventricle. | T | F |
| 8. The aorta is the great trunk artery. | T | F |
| 9. Pulmonary circulation is a phase of circulation in which the blood leaves the heart, goes to the lungs, and returns to the heart. | T | F |

FIGURE C



C. The following is a listing of the parts through which the blood passes in the circulation process. They are not in the correct order. Place a number before each showing the correct order.

- _____ left ventricle
- _____ pulmonary vein
- _____ mitral valve
- _____ right atrium
- _____ pulmonary artery
- _____ superior vena cava and inferior vena cava
- _____ right ventricle
- _____ left atrium
- _____ tricuspid valve
- _____ aortic valve
- _____ pulmonary valve
- _____ aorta

3. The Heart Beat Regulator

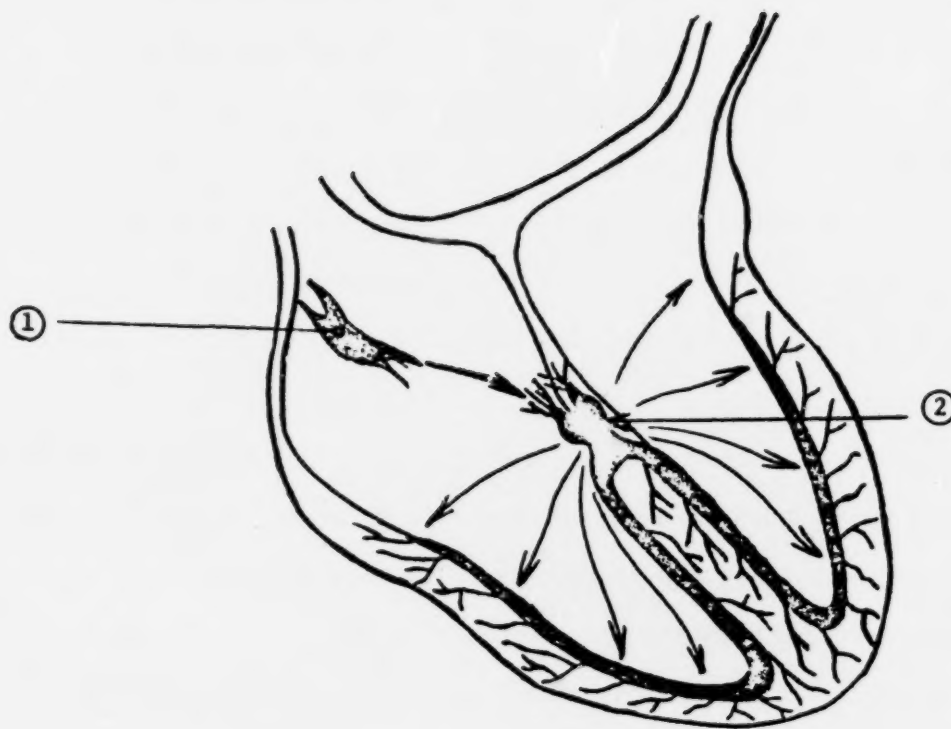
The cardiac muscle functions involuntarily--which means that it cannot be controlled at will. The normal mature heart beats about 72 times per minute when the body is resting. The quickening of the heart beat can result from emotion or demands of the tissue for oxygen during expenditure of energy, as in running. What causes the heart to keep its rhythmic beat? The regulator is controlled in the brain by two balanced sets of nerves. But the heart also provides its own built-in rhythm through the nodal tissue within the heart itself.

The pacemaker which controls the rhythm of the heart is the sinoatrial node - S.A. (1). It is a small area of tissue in the upper part of the right atrium where the superior vena cava empties into the atrium. (See Figure D.) It is also called the pacesetter. The node initiates the impulse which spreads from the right atrium across to the left atrium, causing both atria to contract. (Atria is the plural form of the word atrium.) This contraction creates an action in the other important regulating nodal tissue, called the atrioventricular node - A.V. (2). This tissue is located at the junction of the interatrial and interventricular septum. When the impulse reaches the A-V node, it is activated to transmit impulses which branch out in all directions in the ventricles via fibers known as the atrioventricular bundle, also called bundle of His. (His is the name of a German physician who discovered the function.) The result is the contraction of both ventricles.

If there is a disturbance in the rhythm of the heart beat caused by interference with the S.A. node, the result will be an ectopic rhythm (ectopic means out of place).

Diseases of the heart may cause interference with the pace of the heart. The impairment of this important function may be medically treated by the use of digitalis, or by an electrical pacesetter or pacemaker which is surgically implanted under the skin.

FIGURE D



1. Write the word which means the plural of atrium. _____
2. The word atrioventricular is a combination of two words. They are _____ and _____.
3. Write the abbreviation of sinoatrial node. _____
4. Write the term for the abbreviation, A-V node. _____
5. What is another name for the sinoatrial node? _____
6. Identify the name of the node in Figure D for Number 1 _____;
for Number 2 _____.
7. What is the name for the branching of the A-V node? _____
8. What is the name for a drug used to regulate the heart rate? _____
9. What is the name for an instrument used to regulate the heart rate? _____
10. An irregular heart beat is referred to as _____

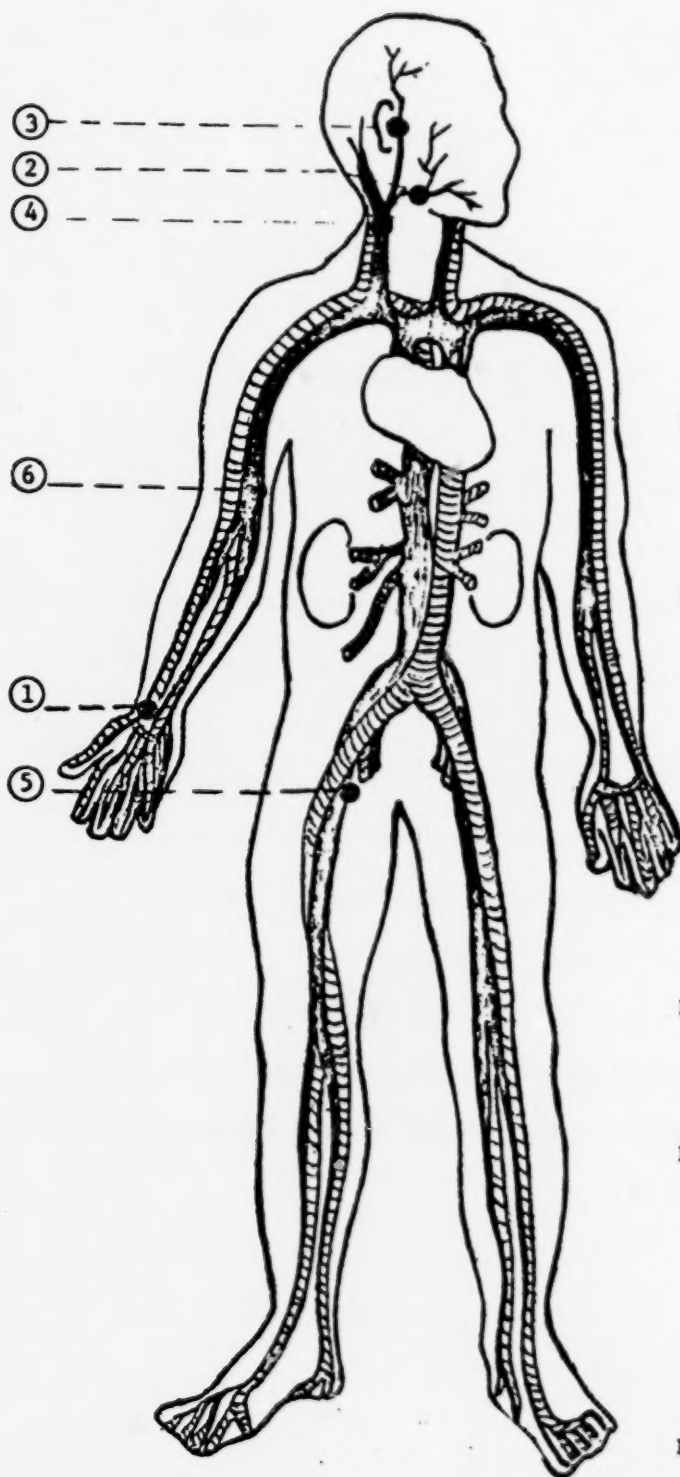
4. Pulse Rate

Every contraction of the heart sends a wave of blood which can be felt against the wall of the arteries. This vibration is called a pulse. It can best be felt by placing your fingers at a place where the artery crosses a bone and is surrounded by very little soft tissue. The pressure points are the wrist - radial (1), the lower jaw bone - mandibular (2), in front of the ear - temporal (3), on each side of the neck - carotid (4), at the groin - femoral (5), and on the upper arm - brachial (6). (See Figure E.) The pulse also is listened to through a stethoscope placed over the apex of the heart. The average pulse rate is between 70 and 80 beats per minute. The pulse is taken in order to make observations of rate, force, and rhythm of the heart beat. It furnishes significant information about the patient's condition because anything that interferes with heart action, blood vessels, or the amount of blood, affects the pulse. The interferences that cause changes in the pulse could be heart disease or disorders, strenuous activities, emotional tension, infection, hardening of the arteries, hemorrhage, or drugs.

When the rate is faster than 100 beats per minute, it is called tachycardia; when it is slower than 60 beats per minute, it is called bradycardia.

Abnormal sounds which are heard over an artery are sometimes referred to as bruits. An irregular beat is called ectopic. The space of time or interval between heart beats is the rhythm. The normal heart keeps a steady beat. When there is an unsteady heart beat, the condition is called arrhythmia. When the heart skips a beat, it is described as an intermittent pulse. When the heart is diseased, a quivering beat in place of a regular beat sets in. Where the beat has an irregularity and varies in strong and weak beats, the condition is known as atrial or auricular fibrillation. Adams-Stokes disease is a heart block associated with a very slow pulse rate. Palpitation is the sensation of rapid, forceful, and throbbing heart action.

FIGURE E



A. Identify names of the arteries where the pulse is felt to match numbers in the drawing.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

B. Which part of the word expresses:

1. Rate faster than normal? ____cardia
2. Rate slower than normal? ____cardia

C. Define the word:

1. Intermittent _____
2. Arrhythmic _____
3. Atrial fibrillation _____

D. Which letter in arrhythmic signifies that it means irregular heart beat?

E. Name at least three conditions which might interfere with the rate of the pulse.

1. _____
2. _____
3. _____

F. Bruits are _____

G. An irregularity in heartbeat is _____

5. Blood Pressure

The measure of force exerted by the blood against the walls of the vessels through which it flows is called blood pressure. The pressure occurs because as the heart muscle contracts, it pumps a great spurt of blood from the ventricles through the pulmonary and aortic valves into the large arteries, which in turn causes their elastic walls to become distended and stretched with blood. Then, during the relaxation which follows, the inlet valves (mitral and tricuspid) are opened for the next supply of blood to the heart chambers. The contraction phase is the systole; it alternates with the relaxation phase, called the diastole. Systole is a greater pressure than diastole because the force of the contraction is greater than the force during relaxation (See Figure F.)

Most physical examinations include a test for blood pressure because it is very sensitive and shows up as an important clue for any conditions that may be present in the body.

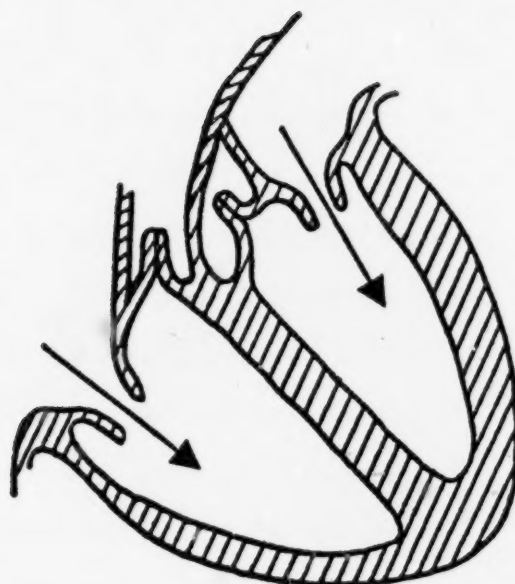
In the healthy adult, the reading for systolic pressure is considered normal if the range is 100 or above (usually up to 140). Normal diastolic pressure is 90 or below. The test is relatively simple and is performed by using an instrument which is called a sphygmomanometer. This instrument is a device which measures how high the blood pressure forces mercury to rise in a column. The column is a scale numbered in millimeters (mm). A test for blood pressure with a systolic reading of 120 means that the mercury in the column reached a level of 120 mm.

FIGURE F



SYSTOLE

The ventricles contract, closing the inlet valves and forcing the blood through the outlet valves.



DIASTOLE

The ventricles relax and the blood flows into them from the atria. The inlet valves are open; the outlet valves are closed.

Fill in with the correct answer:

1. The relaxation phase of the cardiac cycle is _____.
2. The contraction phase of the cardiac cycle is _____.
3. Blood enters the chambers when the heart _____.
4. Blood is pumped from the chambers when the heart _____.
5. The inlet valves are the _____ and the _____.
6. The outlet valves are the _____ and the _____.
7. The muscle of the heart is the _____.
8. The node which first signals the contraction is _____.
9. The node which sends the impulse to the bundle of His is _____.
10. The normal range for systolic pressure is _____ or _____.
11. The normal range for diastolic pressure is _____ or _____.

6. Blood Vessels

The routing of blood vessels can be considered as a dual system. The part of the system that delivers the blood to all the body parts is arterial; the one that returns the blood for replenishing and elimination of wastes is venous. The main branches of the arterial system are called arteries. They branch into smaller arteries, rebranch into arterioles and branch again into capillaries. The capillaries are the tiniest branches of the arteries. Within the capillaries, nutrients are delivered to the cells and waste products are picked up. The route back to the heart starts from the capillaries into the venules (tiny veins). As the branches of the veins approach the heart, they become larger and fewer until they flow into the superior and inferior venae cavae (plural of vena cava), the two largest veins, that bring the blood back to the right atrium of the heart. (See Figure G.) This distribution and return of blood to the heart is called the systemic circulation.

The general rule that can be made is this: for each vessel carrying the blood from the heart (arterial), there is a corresponding vessel which carries it back to the heart (venous).

It has been estimated that if all the blood vessels, including the arterioles and capillaries, were laid end to end, they could circle the earth three times.

Each blood vessel is an elastic tube with walls having three layers. The inner layer or lining is called the intima (1); the middle layer, composed mostly of muscle, is the media (2); the outer layer is a fibrous coat called the adventitia (3). The opening or hollow of the tube is the lumen (4).

ANSWER SHEET

- A.1. myocardium
- 2. pericardium
- 3. endocardium
- 4. interventricular septum
- 5. right atrium or auricle
- 6. left atrium or auricle
- 7. right ventricle
- 8. left ventricle

- B.1. atrial
- 2. cardio
- 3. peri
- 4. endo
- 5. ventricular
- 6. vascular
- 7. septum
- 8. myo
- 9. inter
- 10. ventricle

- A.1. superior vena cava
- 2. inferior vena cava
- 3. tricuspid valve
- 4. pulmonary valve
- 5. pulmonary artery
- 6. pulmonary vein
- 7. mitral valve
- 8. aortic valve
- 9. aorta

B.1 T, 2 F, 3 F, 4 T, 5 F, 6 T, 7 T, 8 T, 9 T

C. 10-7-9-2-6-1-4-8-3-11-5-12

- 1. atria
- 2. atrial and ventricular
- 3. S.A.
- 4. atrioventricular node
- 5. pacemaker
- 6. sinoatrial node (1)
- atrioventricular node (2)
- 7. bundle of His
- 8. digitalis
- 9. electric pacemaker
- 10. ectopic rhythm

- A.1. radial
- 2. mandibular
- 3. temporal
- 4. carotid
- 5. femoral
- 6. brachial

B.1. tachy

2. brady

C.1. skipped beat

2. unsteady beat

3. uneven in time and strength of beat

D. a

E.1. infection

2. tension

3. hemorrhage

4. disease

F. abnormal sounds

G. ectopic rhythm

- 1. diastole
- 2. systole
- 3. relaxes
- 4. contracts
- 5. tricuspid and mitral
- 6. pulmonary and aortic
- 7. myocardium
- 8. sinoatrial or S-A
- 9. atrioventricular or A-V
- 10. 100 or above
- 11. 90 or below

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion Student observation of own skin. Slides showing skin abnormalities specifically caused by nutritional deficiencies. Slides showing layers of skin	The student should be able to state what the appearance of the skin may indicate to an examining physician and why the physician examines the skin. The student should be able to list factors which could affect condition of skin.	Reference: Physiology-Anatomy Text - <u>The Skin</u>, or Shafer et al., <u>Medical-Surgical, Nursing</u>. Charts on the skin.
Discussion - (refer back to films or repeat films). Instructor demonstrates use of the stethoscope for listening to sounds of the heart. Students listen to heart sounds of each other Review material from Instructional Manual - "The Cardiovascular System." Communication Skills - Role Playing	The student should be able to identify the stethoscope and demonstrate how it is used. Students should be able to state why physician listens to heart of patient.	Diagram of heart, showing valve and chambers. Stethoscope Optional: Nurse or physician may be called in to demonstrate auscultation, percussion, and palpation. Situation Rating Form

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Medical Doctor	Visual inspection of skin, condition of skin, appearance, abnormalities.	Appearance of normal skin. Appearance of abnormalities of skin. Ability to distinguish normal from abnormal conditions. Epidermis Layers of skin - (to determine which layer is exhibiting abnormality.) Emotional state	Individuals vary in resistance to skin disease. General condition of skin tells the examiner about the patient's state of health. Nutritional and vitamin deficiencies may produce skin disease and slow healing. Emotional state influences hormones; hormones affect condition of skin. Exposure to certain substances may lead to skin problems. Skin is affected by age. General care of the skin: Cleansing Observation of abnormalities Dangers of self-treatment
	Auscultation Use of Stethoscope	Auscultation - listening for heart sounds. Type of heart sounds and what they sound like Use of stethoscope Definition of: Murmur Valves Anterior Posterior Chest Ventricles	Meaning of various heart sounds Normal sounds Abnormal sounds

PHYSICAL EXAMINATION

Teacher Activity

Role Playing - Communication Skills III

Select students. Rest of class observes and rates.

III. Situation III

- A. Problem - Physical examination by doctor.
- B. Personnel - Doctor, patient, and aide.
 - I. Doctor
 - a. Greet patient
 - b. Look over form for any indication of major disorders. Comment
 - c. Explain to nervous patient what you will be doing and what you are looking for and then perform task.
 - d. Ask aide to help you by handing you the correct equipment to perform the task.

Either write situation on board or distribute copy to students.

PHYSICAL EXAMINATION

Student Activity - Role Playing III

Worksheet

Students will role play the following situation. Using the form below, the rest of the class will rate the student acting as aide.

III. Situation III

A. Problem - Physical examination by doctor

B. Personnel - Doctor, patient, and aide

1. Doctor

- a. Greet patient
- b. Look over form for any indication of major disorders.
- c. Explain to nervous patient what you will be doing and what you are looking for and then perform task.
- d. Ask aide to help you by handing you correct equipment to perform the task.

Rating

Aide:

EXCELLENT	GOOD	POOR
-----------	------	------

Comments:

(9)

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Medical Doctor	Percussion using percussion hammer	Percussion (Tapping) Tapping a surface over a body cavity will set up vibrations within the body. (Cavity containing air sounds clear; solid area sounds dull) Reflex Testing - a sudden tap with a percussion hammer will cause jerking in the area tapped because of nervous system involvement. Involuntary reaction. Reflex arc. Normal reflex reaction.	Structure and function of the autonomic nervous system.
	Palpation (Manual)	Palpation - Certain organs, (e.g., liver, abdomen, spleen) are examined by feeling them through overlying exterior. Abnormalities, such as tumors, can often be detected. What else can be detected by palpation?	
Medical Doctor Dentist	Examination of teeth; Use of Dental equipment	Structure of teeth Detection of dental caries Detection of abnormalities in mouth	Structure and function of teeth Health care facilities in the community where dental care is provided; cost and eligibility for services.

(9)

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion - Reflex Arc; the autonomic nervous system. Instructor demonstrates use of percussion hammer.	The student should be able to identify the percussion hammer and demonstrate how it is used.	Percussion Hammer and Diagram Shafer et al., <u>Medical Surgical Nursing</u> .
Students observe reaction by lightly tapping knee.	The student should be able to state reasons physicians check for reflex action of patients.	Charts and diagrams of a reflex arc and the nervous system.
Student diagram reflex arc.	The student should be able to diagram and explain a reflex arc.	
Discussion and demonstration if appropriate.	The student should be able to state why the physician palpates a patient.	Reference: <u>Dorland's Pocket Dictionary</u> , 21st. ed., 1970.
Discussion - facilities which provide dental care - cost and eligibility - students can research this out of class.	The student should be able to define dental caries and discuss causes and prevention.	Chart and diagram, Oral Anatomy - The Mouth and Teeth
Speaker: Demonstration and discussion of dental care and fluoridation by Dental Hygienist or Dentist.	The student should be able to discuss the issue of fluoridation of drinking water.	Materials available from the Dental Society. Films: "The Fluoridation Story" - 4 min. - 1951. Or: "For Children Because We Love" - 16 min. - 1965. Or: "Why Fluoridation" - 15 min. - 1964. Source: Calif. State Dept. of Public Health, Berkeley, California

PHYSICAL EXAMINATION

Supplementary Teacher Activity

Dentistry

Films: "The Challenge to Dentistry" (fields in which dentists work) and/or "Dental Assistant: A Career of Service."

Optional: Set up a panel discussion on the topic of Fluoridation of Water Supplies.

Instructors and students can bring in articles.

Students can be sent to the school and/or community library to research this issue. OR:

Optional Films: "The Fluoridation Story" or "Why Fluoridation?"

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Medical Doctor	Examination of mouth, teeth, and tonsils using tongue depressor and flashlight.	Use of tongue depressor and flashlight. Number of kinds of teeth in normal human mouth. Normal appearance of mucous membranes and gums. Tonsils, position, normal appearance.	Abnormalities in mouth - teeth, membranes, gums, and tonsils; complications of abnormalities. Diagnosis and treatment of disorders. Function of tonsils.
	Examination of ears, eyes and nose using otoscope and ophthalmoscope.	Use of otoscope Normal appearance of ears. Normal appearance of nasal cavity. Use of ophthalmoscope.	Function of ears, eyes, and nose. Diagnosis of disorders. Treatment of disorders.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion Instructor demonstrates use of tongue depressor and flashlight. Discussion: Function of the tonsils and lymphoid tissue. Instructor demonstrates uses of otoscope and ophthalmoscope. Student will learn to recognize otoscope and ophthalmoscope. Instructor discusses communication skills and initiates role playing. Instructor will set up task performance: clinic day. Instructor will assign final student evaluation test.	The student should be able to identify a tongue depressor and state its use. The student should be able to identify the otoscope and state its use. The student should be able to identify the ophthalmoscope and state its use. The student should be able to perform the tasks specified. The student should be able to accurately complete the test.	Reference: Shafer et al., <u>Medical-Surgical Nursing</u>. Tongue depressor and flashlight. Charts and diagrams of the tonsils.
Communication		

PHYSICAL EXAMINATION

Teacher Activity

Communication Skills - Role Playing IV

Select students to role play. Distribute situation to class. Have other students rate nurse performance.

IV. Situation IV

- A. Problem - Teaching basic skills
- B. Personnel - Nurse and two (2) aides
- C. Nurse
 - 1. Greet class
 - 2. Explain what you will be doing
 - a. How to greet patients
 - b. Help fill out any incomplete forms
 - c. How to make patient calm about what you will be doing
 - d. How to use:
 - (1) Balance scale - height and weight
 - (2) Blood pressure cuff
 - (3) Snellen Chart

PHYSICAL EXAMINATION

Student Activity - Role Playing IV

Worksheet

Students will role play the following situation. Using the form below, the rest of the class will rate the student acting as the nurse.

IV. Situation IV

- A. Problem - Teaching basic skills
- B. Personnel - Nurse and two (2) aides
- C. Nurse
 - 1. Greet class
 - 2. Explain what you will be doing.
 - a. How to greet patients
 - b. Help fill out any incomplete forms
 - c. How to make patient calm about what you will be doing
 - d. How to use:
 - (1) Balance scale - height and weight
 - (2) Blood pressure cuff
 - (3) Snellen Chart

Rating

Nurse

EXCELLENT	GOOD	POOR
-----------	------	------

Comments:

PHYSICAL EXAMINATION

Clinic Day

Objective: The student should be able to perform the specified tasks.

Instructor Guidelines

Materials

Doctor's bag containing the following:

- Stethoscope
- Sphygmomanometer
- Flashlight
- Tongue Depressor
- Percussion Hammer
- Otoscope
- Ophthalmoscope

To be used at equipment identification table:

Physical Examination Forms

Snellen Chart - card to cover eye of patient when testing vision; tape to mark distance from chart

Posters of equipment

Identification numbers to be used for marking stations

Alcohol, cotton, paper towels

Balance scale with height measuring device

Blood pressure equipment - stethoscope and sphygmomanometer

Set up the following stations and label with a number and instructions:

Balance scale with height measuring attachment

Instructions: Weigh and measure the height of a student

Snellen Chart

(Mark off distance patient is to stand from chart during screening)

Instructions: Screen a student using the chart. Record the result. State what the result means.

Stethoscope and sphygmomanometer for taking blood pressure (set up in an adjoining area where noise will not interfere).

Pulse Rate - Take and record the pulse rate of a student

Percussion Hammer - Test the knee reflex.

Equipment Identification Table (Display each item in the doctor's bag for identification).

Distribute physical examination form to each student. As each task is performed the student records the result on the examination form. It is recommended that each task be performed three times on the same person or three different partners who act as the patients. Have the patients initial the result.

Each student labels each item on the equipment identification table and on the posters and states its use, using correct spelling on worksheet passed out by the teacher.

TIME: Two hours

PHYSICAL EXAMINATION

Clinic Day

Objective: The student will be able to perform the specified tasks.

Student Guidelines

Clinic stations are set up in the classroom. A physical examination form and an equipment identification worksheet will be distributed to you.

You are to perform the task at each station three times and record the result on the appropriate form, (except equipment identification) and have the student on whom you performed the task initial the result. Also use the worksheet.

CASE I - PHYSICAL EXAMINATION

WORKSHEET

TASKS

STATION I - HEIGHT & WEIGHT

STUDENT	HEIGHT	WEIGHT
1		
2		
3		

STATION II - SNELLEN CHART

RESULT: STUDENT	MEANING OF RESULT
1.	
2.	
3.	

STATION III – BLOOD PRESSURE

STUDENT	SYSTOLIC	DIASTOLIC
1		
2		
3		

STATION IV – PULSE RATE

1
2
3

STATION V – PERCUSSION HAMMER

Did you get a reflex response?

STUDENT	YES	NO
1		
2		
3		

Diagram a reflex arc.

STATION VI – EQUIPMENT IDENTIFICATION

Identify the items on the table and state the use of each.

Be sure to spell each item correctly:

A.

B.

C.

D.

E.

F.

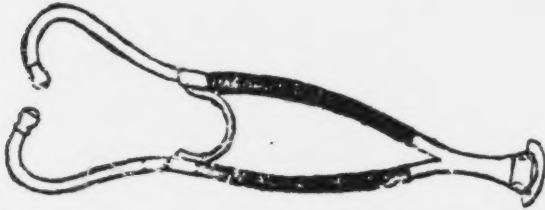
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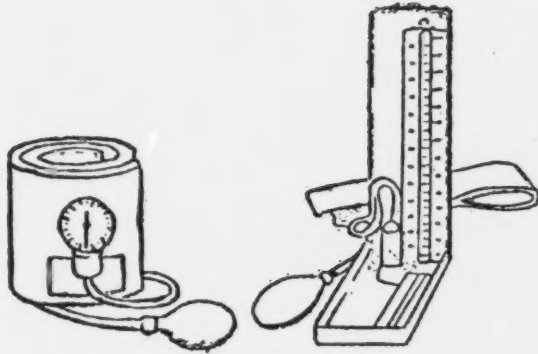
PHYSICAL EXAMINATION

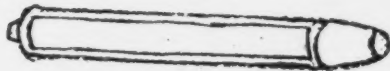
Student Test

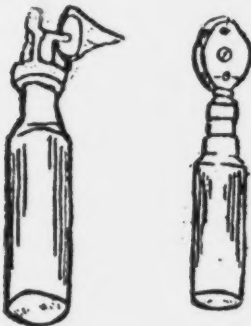
PART I

Write the name of each piece of equipment next to the picture.











PART II

- I. Which would be the best indicator of the nutritional state of an individual? Circle the letter(s) in front of the correct answer.
- A. Height
 - B. Weight
 - C. Height and weight looked at in combination
- II. Which of the following health personnel might weigh and measure the height of a patient? Circle the letter(s) in front of the correct answer.
- A. Doctor
 - B. Nurse
 - C. Nurse's Aide
 - D. Pharmacy Aide
 - E. A, B, and C
- III. Which of the following may be symptoms of a medical disorder? Circle the letter(s) in front of the correct answer.
- A. An adult female who has not gained any weight over the past year.
 - B. A 15 year old female who has lost 10 pounds without dieting in one month.
 - C. A 16 year old male who has gained 2 pounds in a month.
- IV. The number of calories an individual needs each day is determined by: circle the letter(s) in front of the correct answer.
- A. Age
 - B. Height
 - C. Amount of exercise the person gets
 - D. All of these
 - E. None of these
- V. John has decided to try out for his high school basketball team. But first he must pass a physical examination given by the school doctor.
- A. Why do you think it is important for John to have a physical examination before playing on the basketball team?

B. John is filling out the health history questionnaire required for the physical examination.

He does not know the meaning of the following words:

1. Diabetes
2. Paralysis
3. Hernia
4. Epilepsy
5. Asthma
6. Convulsion

Pick three of these terms, tell John what they mean. (Indicate which words you are defining.)

a.

b.

c.

C. The doctor asks the nurse to test John on the Snellen Chart. What part of the body is tested using the Snellen Chart?

- D. John's test results with the Snellen Chart were 20/20, what does this mean?
- E. The nurse uses an audiometer to test_____.
- F. The doctor asks the nurse to bring him the instruments used for measuring blood pressure and listening to the heart. Which of the following instruments should the nurse bring to the doctor? Circle the number(s) in front of the correct answer.
1. Snellen Chart
 2. Otoscope
 3. Stethoscope
 4. Ophthalmoscope
 5. Sphygmomanometer
 6. 1, 4, 5
 7. 3, 5
- G. John was nervous about the examination. Do you think this could affect his blood pressure and heart rate? Circle your answer. YES NO
- H. If John had run a 100-yard dash just before the doctor took his blood pressure and measured his heart rate, would the results be different than if John had been sitting quietly just before this part of the examination? Circle your answer and give a reason for your choice.
- YES NO REASON:
- I. _____ carry blood from the heart to the rest of the body.
_____ carry blood back to the heart.
- J. The doctor examines John's skin because: circle the number(s) in front of the correct answer.
1. Skin conditions may indicate physical and/or mental problems.

2. Certain skin conditions may be caused by poor nutrition.
3. 3, 2
4. None of these
- K. The doctor uses a _____ to listen to John's heart sounds.
- L. Listening to heart sounds is called _____.
- M. A murmur would cause abnormal heart sounds. Circle the correct answer. TRUE
FALSE
- N. Testing John's nervous reflexes is an important part of the examination. To test reflexes the doctor uses a _____.
- O. Next the doctor palpates John's liver and spleen. What does this mean? (What is meant by palpate?)
- P. A tongue depressor aids the doctor in examining John's _____.
Draw a simple sketch of a tongue depressor.

NOTE: The teacher may add questions relating to what was covered in class.

CASE II

BROKEN LEG

Purpose

To introduce the student to a variety of hospital occupations within the framework of a hypothetical health problem.

To enable the student to learn simple hospital tasks and understand the functions of hospital personnel.

Objectives

The student should be able to describe the functions of the personnel involved in the case.

The student should be able to perform tasks specified within the framework of the case.

The student should be able to analyze the relationship between specified tasks or jobs and patient care.

CASE II

BROKEN LEG

Procedure

This case presents a series of hospital occupations with their related tasks and knowledge requirements. As each occupation is introduced:

1. Define those of its tasks which are required by the sample case.
2. Relate the individual task to the overall care of the patient.
3. Instruct students in those tasks they will be expected to perform.
4. Discuss the occupation, its requirements, and training needed.
5. Discuss the possible vertical and horizontal mobility for that occupation.

Health Problem: Simple fracture of a bone in the leg (tibia) for which treatment involves a hospital facility.

Facility: Hospital

Profile

Willie loved football. He loved it so much that he could hardly wait for the final class bell which signalled the beginning of practice time.

It was the last practice session before the big game. Everything was going well. Willie had the ball and was running with it down the field. A moment later he was rolling head over heels in a series of somersaults. He found himself lying on the ground with his leg bent queerly beneath him. He moved tentatively and experienced a piercing pain in the leg. The coach and his teammates ran to his aid as he cried out. Someone ran for the school nurse. Someone called an ambulance. Willie's family was notified as quickly as possible.

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Lecture discussion on bones of leg compared to arm. Diagram. Instructor will arrange guest lecturer--ambulance driver. Basic first aid. Review treatment for shock. Students will put sample splints on each other, also learn how to fix a sling for a broken arm. 1. Students will work in pairs, filling out personal history forms for each other. Different situations can be set up: (1) Person fills out his own form. (2) Clerk reads form, interprets questions for patient, then writes in patient's answers (clerk does this because the patient has a language problem). Role Playing: (1) Student with broken leg who is calm and able to answer questions clearly. (2) Student who is nervous and upset and has difficulty answering questions. (3) Student who is too upset to talk. How does clerk handle each situation? Tape record one pair, analyze in class. 2. Review which insurance plan the patient has.	The student should be able to label the bones of the leg and arm. The student should be able to describe functions and some tasks of the ambulance driver. The student should be able to demonstrate the first aid measures practiced in class. The student should be able to fill out an admitting form accurately.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse (RN)	Evaluates patient. - takes blood pressure using sphygmomanometer. - Takes temperature using thermometer. - checks patient's injury and notifies doctor. - administers ordered medication. - records condition of patient upon entry into hospital.	Thermometer must be "shaken down" before using. The mercury column must be below 97° F. To secure accurate temperature the thermometer must be placed under the tongue as far as possible and the mouth kept closed for approximately three minutes. READING - The thermometer should be held by the stem so that the graduations are on the upper side and the figures on the lower side; then keep turning the thermometer slowly until the mercury column is plainly seen.	Fahrenheit thermometer-- freezing 32° F boiling 212° F - Normal Temperature 97-99° F Average 98.6° F Variation is normal. - Abnormally low or high temperatures are indicators of ill health. Admission records must be carefully recorded. In accident cases there are often legal complications. The condition of the patient after the accident then becomes very important.
Doctor (Emergency Room)	- Checks injury. - Orders medication to relieve pain, e.g., aspirin or narcotic. - Requests X-ray of broken bone. - Refers patient to orthopedic physician.		Make initial diagnosis, give emergency treatment, and determine referral based on diagnosis.
Orderly	Takes patient to X-ray Department. Transports patient on guerny.	- Siderails are provided and should be up while transporting patient. (If no siderails, see #3 below.) - Patient should be lying flat on guerny preferably in supine (back-lying) position and covered adequately. - Safety straps attached to guerny should be comfortably and safely placed to secure patient to guerny. - Orderly should place himself at head of guerny and push.	The procedures used for transporting the patient are all related to safety precautions.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor will demonstrate taking of oral temperature, including disinfection of thermometer before use. Students will select partner, read and record each other's temperature. Briefly review sphygmomanometer. Discussion	The student should be able to take an oral temperature accurately and state the normal range.	
Discussion; demonstration	The student should be able to state the role and functions of the orderly.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
X-Ray Technician	Reads request for X-Ray (numbers and types). Carries out procedures for taking X-Rays: Measures with centimeter ruler, thickness of part to be radiographed. Lead strips used to divide film; several exposures can be made on same plate. 1. Technician may have to hold patient in position; if so, must wear lead gloves and apron. 2. Technician outside room or behind lead partition. Master switch of X-ray machine turned on: 1. Focusing. 2. Exposure of film. 3. Shutting off power.	Metric system: Meter is basis for measurement. 100 centimeters in a meter. Roentgen rays do not penetrate lead. Radiation information.	The metric system is the universal scientific measurement system. The technician's exposure to radiation must be carefully monitored and protected against. There are serious radiation hazards. Lead is one material that is not penetrated by roentgen rays (X-rays); for this reason, it is used for shielding.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Students will be given meter rulers. They will convert specified measurements to inches and vice versa. Instructor will hold a discussion related to the X-ray procedure. Bring in X-rays for class - have bad examples and good examples.	The student should be able to demonstrate measurements, using the meter ruler. The student should be able to describe the purpose of X-rays and the possible dangers of overexposure to radiation.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Radiologist	Examines radiograph using a view box. Dictates report on dictating machine.	Box with milk-glass top with light inside. When film is placed on glass and light turned on, film is clearly illuminated.	Radiologist - analyzes X-ray; provides accurate diagnosis. The denser composition of bone compared to tissue makes for the light and dark areas of the radiograph.
Secretary	Types radiologist's report from dictation on tape or disc.	Knowledge of medical terminology and how to use machine.	The report must be accurate, since it forms the basis for treatment.
Orthopedic Physician	Determines from radiologist's report whether open or closed reduction is required and which type of treatment is needed, i.e., surgery, traction, or casting. <u>OUR CASE:</u> Closed reduction and casting only require to be treated on out-patient basis.	Reduction - term used to describe setting break in correct position.	Orthopedics is a surgical speciality dealing with the musculoskeletal system. Based on his knowledge and experience, the physician determines the procedure to be used. X-ray is the only sure way to determine if fracture has been set properly.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion. Demonstration. Structure of leg, including muscles. Instructor will dictate a sample of a radiologist's report to class. Students will write sample report, then check for errors in terminology, etc. If possible, instructor will indicate: 1. How some transcribing errors could change radiologist's report to the detriment of the patient. 2. How such errors might waste valuable time; to correct, the film would have to be reread by the radiologist.	The student should be able to transcribe accurately from instructional dictation.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Orthopedic Physician	Puts broken leg in cast with aid of technician using:		
Orthopedic Technician	Stockinette Cast Padding Plaster bandages		
X-Ray Technician	Takes X-rays to see if bones are still in proper align- ment Brings exposed film to automatic pro- cessor which con- tains developer, fixer, and a stop bath; dries film and produces finished radiograph. In process room checks X-ray pic- ture for: 1. Sharpness. 2. Exposure. 3. Proper position. 4. Contrast. 5. Identification. (correct number) Makes up film packet for per- manent file. Sends radiograph to Reading Room.	How to develop film. Components that make a good X-ray picture.	Ability to determine and handle any problems with automatic processor.
Nurse (RN)	Assists physician.		

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
In hospital classroom, have orthopedic technician demonstrate to the class how to put a cast on a leg (or arm). At same session demonstrate removal of cast. Instructors will have, in class, examples of: 1. Clear X-ray picture. 2. Foggy, indistinct picture. 3. Exposed film. Discussion based on quality of radiographs. How can a bone-break be identified from an X-ray picture? Demonstrate different densities on on X-ray plate and explain what they mean.	The student should be able to state the purpose of casting. The student should be able to state the criteria for good X-ray.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Orthopedic Technician	Elevates casted leg and checks patient for several hours to watch for symptoms of problems caused by casting. Uses ice packs to control swelling. Checks nerves and circulation to see that there are no pressure points inside cast. If swelling occurs; - Make several cuts over swollen area. - Split cast - make one lengthwise cut to relieve pressure. - Do a bivalve - cut plaster lengthwise in 2 pieces and use tape to hold cast in place. Reclose cast after swelling has gone down.	Knows how to relieve swelling by procedures described under tasks.	Orthopedic technician is a new profession. He relieves the nurse and doctor of certain tasks.
Physician	Refers patient to physiatrist.		

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion Instructor will provide plaster of paris and students can practice "casting" on model or on one another.	The student should be able to describe the functions of the orthopedic technician.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Receptionist	Takes name of patient; gives patient form to fill out.	Ability to communicate with patient	Understanding various forms of therapy - schedules of patients.
Physiatrist (Doctor of Physical Medicine)	1. Examines patient 2. Determines type of therapy needed. 3. Orders therapy for patient. 4. Discusses with patient the therapy schedule and answers any questions.	Physiatrics - that branch of medicine using physical agents, such as light, heat, water, electricity and mechanical apparatus, in the diagnosis, prevention, and treatment of bodily disorders. The speciality of physical medicine and medical rehabilitation is relatively new. A specialty board was incorporated in 1947. Number of certified specialists in 1965 was 45. Total number of specialists certified is 558.	

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
	The student should be able to define the role of the physiatrist.	Forms, pen Reference: <u>The Physician, Life Science Library</u> , 1967, by Russell V. Lee, Sarel Eimerl, p. 102.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Physical Therapist and Physical Therapist Aide	1. Follows doctor's orders for patient. 2. Assists patient in doing quadriceps setting exercises (tightening the knee). 3. Assists patient in doing upper extremity-strengthening exercises so that patient can use crutches. 4. Assists patient in standing and ambulating between parallel bars. (This is done about 4 or 5 days before attempting to use crutches.) 5. Requests adult adjustable crutches (ancillary crutches) with hand grips. 6. Adjusts crutches to size of patient. 7. Helps the patient to walk on the crutches, between the parallel bars. 8. When the patient is strong enough, helps him to walk outside the bars. 9. Teaches the patient ADL activities (Activities of Daily Living), such as negotiating stairs, going down inclines, getting up from a chair, etc. 10. Teaches the patient to walk with walking cast (one with a heel on it), and to begin to put weight on the injured leg. 11. Teaches patient to walk with a cane as he gets stronger.	Principles of Physical Therapy	Understanding of musculoskeletal system. Treatment is individualized for each patient. Communication skills, empathy, and understanding of patient fears is important.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
	The student should be able to relate the importance of physical therapy and name 3 tasks of the physical therapist.	Gym apparatus

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Orthopedic Technician	1. Removes cast with cast saw. 2. Washes leg with soap and water. 3. Lubricates skin with oil. 4. Moves limb gently.	Cast Removal	Skin that has been encased in a cast for any length of time becomes dry and scaly. Unused muscles become stiff, with possible impairment of circulation.
Hydrotherapist	Assists patient in exercising the muscles of his leg (after cast has been removed) in hydrotherapy pool.	Ability to swim Principles of hydrotherapy.	Various exercises help restore muscle tone.
Clerk in Business Office	Collects bills Insurance information.		Patient must be signed out (discharged) by physician.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Demonstration of leg muscle movements; pictures of muscular development and muscular atrophy.	The student should be able to describe the problems caused by immobilization.	
Recheck admittance and discharge forms that were filled out at the beginning of the case. Review insurance coverage: 1. In class, compute cost of hospital stay, drugs, doctor, etc. 2. If student is covered by Blue Cross--what costs are covered by insurance? What costs must student pay? 3. Do same for Kaiser.	Students should be able to distinguish difference in coverage between Blue Cross and Kaiser Plan.	

CASE III

APPENDICITIS (APPENDECTOMY)

Acute appendicitis requiring hospitalization and emergency surgery.

Purpose

To introduce the student to the basic occupations, tasks, and equipment used pre-operatively, during surgery, and post-operatively.

To teach simple routine tasks which are performed by entry-level hospital personnel involved in this case.

To demonstrate, by brief introduction of some basic scientific principles, the related knowledge needed for performance of entry-level tasks.

Objectives

The student should be able to list in sequence the major steps involved in preparing the pre-operative patient, setting up the operating room, following the patient from operating room to nursing floor.

The student should be able to list some of the basic tasks performed by entry-level personnel in areas indicated above.

The student should be able to demonstrate his understanding of ethical considerations regarding the patient.

CASE III

APPENDECTOMY

Procedure

The teacher should review the entire case. A list of references is included to provide the necessary background information.

Suggested activities include two guest lecturers--a pharmacist and a laboratory technologist. Guest lecturers should be scheduled with the help of the Field Coordinator and should be made aware of the objectives of the case. Lecturers should also be informed in writing of the teacher's expectations and students' level of preparation. If this is not possible, the teacher should set up a laboratory session following the lecture. The students will perform the tasks which were demonstrated during the lecture.

The lecturer should be asked to give the class information on the educational preparation for his occupation or profession. He will be asked to give demonstrations, with return demonstrations to be performed by students, if this is agreeable to the guest. He should explain all procedures carried out in the demonstrations, and the reasons for them. The teacher will assist the lecturer as much as possible.

Prior to the lecturer's visit to the classroom, students should be informed of the visit and its purpose and receive some background information on that portion of the curriculum which centers around the subject matter of the lecture.

Materials and equipment needed for use by the guest lecturer should be provided before he arrives. Some guest lecturers may supply the necessary equipment. Discuss the possibility before appearance.

For typing of blood, a specimen may be obtained from students. Be sure that signed parent consent slips are on record for every student who volunteers for blood typing.

CASE III

APPENDECTOMY

Health Problem: Appendicitis - Appendectomy

Facility: General Hospital

1. Nursing Floor
2. Operating Room

Profile

Susan McBee was in the car going home with her parents after the high school graduation ceremony. They were very proud of the awards Susan had received, but she hardly heard their compliments. Her thoughts were on the prom, a few hours away.

The last few days had been most exciting. Susan had tried not to pay attention to the nagging ache on her right side and the queer feeling in her stomach. Just a "nervous stomach," Susan told herself, echoing a remark she had heard her mother make many times. And who could have an appetite at times like these, anyway?

The family arrived home, Susan refused to eat, reminding her mother that food would be served at the prom. No, she reassured her mother, she was not "coming down with anything," she was just a little tired.

It took Susan a long time to get ready. She kept wondering why she was so groggy and why she felt so warm.

Keith called for her and they started for the prom, a quiet Susan protesting that she felt fine.

That she wasn't fine became apparent to a frightened Keith a few hours later when Susan collapsed. He rushed her home and her mother called their physician with so desperate a plea that Dr. Harold Sarkino arrived within half an hour.

By then Susan had vomited twice. From Susan the doctor elicited the symptoms she had experienced. He took vital signs, and found that Susan had a low grade temperature. When he touched a certain point on the right abdomen, Susan cried out in pain. Dr. Sarkino advised Susan's mother to call an emergency ambulance immediately. He made some calls to the hospital and told Susan's parents and poor Keith that he suspected appendicitis. It might mean an emergency operation to remove the appendix.

Susan was rushed to the hospital, admitted immediately, and taken to her room. Lab tests were done; Dr. Sarkino's tentative diagnosis was confirmed, and the operating room staff was alerted for an emergency appendectomy.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Physician	Home examination of patient to establish tentative diagnosis. Explains to relatives. Gives orders to hospital departments (Admitting, Nursing, Lab, Operating Room). Needs thermometer, sphygmomanometer.	Abdominal distress and symptoms can occur in appendicitis as well as in other medical conditions.	Immediate removal of appendix will preclude possibility of more serious complications.
Ambulance Driver	Transports patient to hospital Admitting Department.	Must know position of comfort to be maintained. (semi-Fowler's)	Position relieves tensions on the abdominal muscles and decreases pain.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion: Brief Anatomy & Physiology of GI system. Pathology leading to appendicitis. Discuss profile, lecture, using wall chart to illustrate. Student - Record new terms Label diagram A & P (Homework assignment) Take evaluation (written) Take, record blood pressure Teacher: Review techniques. Ask a pair of students to demonstrate.	Should be able to define terms. Should be able to locate on diagram various parts of digestive system and tell functions. Should be able to describe pathology (generally) of appendicitis. Should be able to underline symptoms found in profile. Should be able to demonstrate proper technique for taking, recording blood pressure.	<u>Materials:</u> Anatomy Wall Chart Unlabelled diagrams of GI system. Profile of case <u>References:</u> Villee, <u>Biology</u>. <u>Ferres, Skelly, Body Structure and Functions</u>. <u>Shafer et al., Medical, Surgical Nursing</u>.
Positioning, getting patient out of bed, ambulating. Teacher: Demonstration, discussion. Student: In pairs, practice positioning patient.	Should be able to name four basic positions (patient). Should be able to tell why semi-Fowler's position is used for patient in this case. Should be able to demonstrate semi-Fowler's position.	<u>Materials:</u> Hospital bed, linen. <u>References:</u> Hegner, Caldwell, <u>Health Assistant</u>

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Admitting Clerk	SEE	FRACTURE	CASE, Page 251
RN Hospital Floor	Receives patient, relatives, accompanies to room. Receives and executes physician's orders. Assigns personnel to tasks. Gives medications and starts IV. Needed: IV Pole, Ice bag, NPO sign at bedside.	Must know how to reassure patient and relatives. Must know reasons for physician's orders. Must know proper personnel to be assigned.	Awareness of legal aspects. Awareness of desired outcome of therapeutic measures. Knowledge that lab requests must be immediately forwarded. Knowledge of tasks and responsibilities of personnel.
Ward Clerk	Receives admitting records, assembles charts in proper order, etc.	Knowledge of forms used in charts.	All patient charts are considered legal documents.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Lecture - Forms found in chart - duties of Ward Clerk</u> <u>Teacher</u> - Explains various papers found routinely in hospital chart. Explain Ward Clerk functions. Give out blank forms, explain. <u>Student</u> - Fill out forms as directed. List routine duties of ward clerk.	Should be able to identify some forms in hospital chart and explain uses. Should be able to list duties of ward clerk.	Materials: Blank forms from chart References: Harmer, Henderson Text-books <u>Principles & Practices of Nursing.</u> See additional references, activity (page 278).

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
LVN, Nurse Aide	Takes vital signs, undresses patient, places equipment in bedside stand. Obtains urine specimen. Explains room accessories (including call light). Labels urine specimen. Puts patient to bed, rails up. Applies ice bag. Equipment needed: Gown, tissues, thermometer, sphygmomanometer, labels, specimen container, bedpan, emesis basin.	Awareness of patient's need for privacy and accessibility of equipment. Knowledge of routine lab examination. Knowledge of position of comfort, safety factor. Awareness that ice bag must be kept well wrapped; properly placed in abdominal area (site of pain).	To approximate home setting as much as possible. Decrease necessity for movement. Examination of urine specimen reveals condition of urinary system. Cold reduces pain.

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
<u>Labelling of Urine Specimen</u> Teacher: Demonstrate filling out of labels; show urine specimen container and describe. Student: Fill out labels, place on container.	Should be able to identify urine specimen container. Should be able to record accurately and legibly information needed on specimen container.	Materials: Urine specimen container. Labels. Reference: Caldwell, Hegner <u>Health Assistant</u>
<u>Filling of Ice Bag</u> Teacher: Explain reason for use, show equipment, demonstrate proper procedure for filling and applying to patient. Student: Return demonstrations, role play.	Should be able to demonstrate proper technique for filling ice bag. Should be able to identify and tell use of ice bag. Should be able to tell why bag should be covered. Should be able to apply bag to patient.	Materials: Ice bags, ice. Reference: Caldwell, Hegner <u>Health Assistant</u>
<u>Culturing of Bacteria</u> Teacher: Lecture, microbiology as relates to above. Demonstration, preparation of Petri dishes, culturing procedure. Student: Prepare Petri dishes, culture.	Should be able to list several sources of bacteria and other microorganisms, list several ways to decrease, eliminate, prevent growth of microorganisms. Should be able to prepare Petri dishes with agar and apply bacteria. Should be able to label properly and place in safe area to incubate. Should be able to relate differences seen in three specimens.	Materials: Agar, Petri dishes, labels, soap. References: Pelczar, <u>Exercises in Microbiology</u>. Pelczar, <u>Microbiology</u> Caldwell Hegner, <u>Health Assistant</u>.
<u>Handwashing</u> Teacher: Lecture, discussion; demonstrate proper technique of handwashing--Reasons. Student: Return demonstration, list steps.	Should be able to recall sources of microorganisms. Should be able to tell why hands must be properly washed. Should be able to list and demonstrate proper handwashing.	Materials: Soap - bacteriocidal, bacteriostatic (pHisoHex) References: Handwashing Procedures, UCLA Allied Health Profession Projects, Nursing Unit.

APPENDECTOMY

Teacher Activity

Culturing of Bacteria

Lecture, include definition of microbiology, growth of microorganisms under controlled circumstances and free in nature. Stress pathogenic and non-pathogenic types.

Demonstrate preparation of Petri dishes, culturing procedure.

Ask for two volunteers to assist in preparation of three Petri dishes in controlled experiment.

Proceed as follows:

One student to be instructed to wash hands as he would ordinarily, using regular soap.

He is to run fingers lightly over agar in Petri dish, close and label dish (use same fingers for both Petri dishes).

He is to be instructed to wash hands second time using technique shown to him with a bacteriocidal or bacteriostatic cleaning agent (pHisoHex).

He is to run fingers lightly over agar in second Petri dish, close and label dish.

Second student will follow same procedures as above except that he will streak agar with "Q-tip" with which he has cleaned one fingernail (use same finger for both Petri dishes).

Have remainder of students run fingers over various selected subjects in room, streak agar, cover and label Petri dishes.

Explain incubation period (24 hours, room temperature).

Examine results on following day with students.

Encourage verbalizing of observations.

Have students record observations on board.

Summarize lecture material, findings from experiments.

Stress reasons for washing hands, keeping fingers out of mouth, etc.

Assist students to discard experiment materials safely and to clean up equipment.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Laboratory Technician	At bedside draw blood, obtain collected urine specimen. Equipment Needed: Syringe, needle, stoppered test tubes, labels. In Lab: Do CBC + Differential. Do Urinalysis; forward copy of results to nursing floor.	WBC is high in appendicitis. HGB, RBC. Type and cross match.	Phagocytosis - high WBC is indicative of inflammatory process (infection). If HGB and RBC below normal, blood transfusion may be needed prior to or during or after surgery. Urinalysis may reveal presence of increased glucose (diabetes). Surgery may have to be delayed or special precautions taken if surgery is performed.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Guest Lecturer - Lab Technologist</u> Teacher: Introduce to class the material that will be discussed by lecturer prior to his classroom visit. Introduce guest lecturer to class on the day of his visit, assist him in presentation.* Student: Observe, question, return appropriate demonstrations. 1. Urinalysis, gross, microscopic. 2. Typing of "Labstix" blood. 3. CBC lab findings and reports.	Should be able to identify normal appearance of urine. Should be able to list differences between gross and microscopic analysis. Should be able to demonstrate use of Keto, Albus-tix, Clinistix, Labstix and tell what each used to identify. Should be able to recall procedure used in grouping and typing blood by listing steps. Should be able to fill out laboratory request slips during demonstrations. Should be able to list diseases that might cause an increase in WBC.	Materials: Urine specimen, blood specimen, lancet, alcohol, cotton, slides, reagents, microscope. References: McFate, R. P., <u>Introduction to Clinical Laboratory.</u>

*Lecturer will lecture and demonstrate.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Physician	Receives lab report confirming diagnosis. Issues pre-operative orders to nurse. Alerts operating room to "prepare for emergency" appendectomy.	Significance of reports. To provide optimum condition. Appendix must be removed as soon as possible.	Delay may result in ruptured appendix with complication: peritonitis.
RN - Floor	Receives pre-op order. Orders: Low tap water enema. Pre-anesthetic sedative. Continue IV 5% D & W (dextrose and water). Abdominal Prep. Gives medication. Continues IV. Checks and signs pre-op sheet. Checks for consent for surgery signature. Assigns personnel to execute MD's orders.	Pre-op sedative allows patient to accept anesthetic easier. Keep vein open, give nourishment to body cells. V/S, allergies, meds given; valuables stored safely (prep done). Consent indicates patient is willing. Other pertinent information to be placed on Pre-op checklist.	Anesthetic will be injected via vein. Energy must be maintained so D & W given IV. OR personnel should have accurate profile of patient's condition as it is important for success of surgery. Minor cannot sign--parent or guardian must.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Lecture OR plant, personnel</u> Teacher - Lecture, discussion OR personnel, their functions. Describe, show illustrations of OR layout. Students: Homework Assignment 1. List duties of OR Tech (general) 2. Name other members of OR team Posters depicting OR layout with equipment.	Can list members of OR team. Can list duties of OR Technician. Can draw posters depicting OR layout - stationary, equipment.	References: <u>Shafer et al., Medical-Surgical Nursing.</u> Article: <u>Hospital Topics (11/70)</u> <u>"Training of Technicians."</u>

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
LVN	Administers low tap water enema. Takes vital signs and records on OR check list. Removes nail polish, wigs, jewelry. Dresses patient in gown, covers hair with towel.	Should be administered only 4 to 5 inches into lower area of colon, slowly. Indicates patient's pre-operative condition. Minimizes amount of excess accessories taken to OR. Decreases microorganisms taken into OR.	Purpose of enema: to evacuate bowel before surgical procedure. Purpose of low and slow administering--to prevent disturbance of higher areas of colon (peristaltic motion which would irritate inflamed appendix). Useful information for OR team. Nail polish - nailbeds can indicate proper oxygenation of tissues (or lack of oxygen).
Aide	Abdominal prep. (shave area where surgery is to be done). Hand razor, soap, water, cotton balls.	Remove all body hair in the area of intended surgery.	Hair harbors microorganisms which can contaminate sterile field.
Orderly (OR)	Transport patient to OR via guerney.	Side rails up, patient supine, flat, covered by sheet. Patient secured to guerney by means of straps, comfortably and securely placed. Orderly at head of guerney to guide it.	Safety measures to be maintained at all times.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion - Preparation of patient for surgery. Teacher: Lecture, abdominal prep. Review microbiology; tell what equipment needed for prep. Consent slips. OR check list and its importance. Show sample copy of OR check list, consent slip. General prep. of patient for surgery. Student: Discussion, answer questions; review blank copies of OR check list, consent forms; list simple items.	Should be able to tell reason for signed consent slip. Should be able to recall medical asepsis and relate to reason for abdominal prep. Should be able to list several items included on OR check list. Should be able to list some preparations made for patient going to surgery.	Materials: Blank copies of OR check list and consent slips. References: Shafer et al., <u>Medical-Surgical Nursing</u>. McCutcheon, <u>Care of Patient with Common Surgical Disorders</u>.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Anesthetist or Anesthesiologist (M.D.)	Visits patient in hospital to determine best type of anesthetic.	Type and location of surgical procedure, patient's condition, age, allergy factors.	Determines local or general anesthesia to be used. Dosage requirements. Contra-indications to use.
Anesthetist	Sets up equipment, medications, material to be used as anesthetics. Monitors vital signs, adequacy of anesthetic. Administers anesthetic as needed, continues or begins IV's, blood infusions.	Levels of consciousness.	Maintenance of proper level affords stable vital signs, cooperative patient, successful and speedy surgery. Also better and faster period of reacting post-operatively.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Guest Lecturer - Pharmacist</u> Prior to pharmacist's appearance in classroom, teacher should introduce topic of Pharmacology as related to anesthetic, outlining what pharmacist will cover with brief history of anesthesia, and name of some common anesthetics. Teacher - Lecture, elicit answers to questions regarding purpose of anesthetics. Show film, "The Bowl of Hygieia" (preview first, substitute if necessary). Discuss OR technician's role in relation to anesthetist. Discuss anesthetist's role. Student - List and define terms. Tell generally for what purpose anesthetics used. Discuss film. Discuss ways in which OR technician assists anesthetist.	Should be able to list some common anesthetics that might be used. Should be able to list ways in which OR technician will assist anesthetist.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Circulating Nurse or OR Tech.	Sets up operating room. Table, sterile instruments, gowns, gloves, etc. Gowns, M.D. Receives and checks OR check list, consent signatures, lab reports. Assists anesthetist. During surgery--sponge count, towel and instrument count. Accepts, labels specimen, forwards to Pathology lab.	Maintenance of sterile technique. Knows type of case, therefore, type of instruments to be used. See RN (floor) (page 282). Patient needs explanation and reassurance before becoming anesthetized. Accurate count important. Preclude possibility of loss of any of these articles in operative site. Any tissue removed from patient to be forwarded for lab analysis.	Contamination of field can lead to contamination of operative site, set up infection post-operatively. Anticipating needed equipment makes for smooth-running and quicker procedure. Better acceptance by patient of anesthetics. Any article remaining internally is a foreign body and may set up infection, with complications--legal aspects (lawsuit by patient). Accurate report on type of specimen must become part of patient's hospital records.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Gloving</u> Teacher - Review Basic Medical asepsis by means of discussion. List steps in gloving procedure. Demonstrate procedure. Students - Return demonstration.	Should be able to tell purpose of gloving. Should be able to list steps. Should be able to demonstrate technique.	Materials: Sterile glove packs, talcum powder (optional). Reference: Gloving UCLA Allied Health Professions Project, Nursing Unit* *To be published by Saunders. Probable title: "Nursing Skills for Allied Health Services." Editor: Lucile A. Wood, R.N., M.S. Caldwell, Hegner <u>Health Assistant</u>
<u>Gowning</u> Teacher - Lecture, maintenance of sterile technique. OR Demonstration of gowning OR personnel. Student - List steps in technique. Return demonstration, gowning.	Should be able to list reasons for gowning. Should be able to list steps in gowning procedures. Should be able to demonstrate techniques.	Materials: Sterile gowns (2) Gloves References: Gowning UCLA Allied Health Professions Project, Nursing Unit* *To be published by Saunders, Probable title: "Nursing Skills for Allied Health Services." Editor: Lucile A. Wood, R.N., M.S.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Surgeon & Asst. (M.D.'s)	Performs surgery	Anatomy and Physiology, condition of patient. Types of instruments to be used.	Area to be incised, what to look for in abdominal cavity and where, will make for faster conclusion of case.
Scrub Nurse or OR Technician	Gloves surgeons, assists surgeons by passing instruments, maintaining sterile field.	Know type of surgery being performed and order of passing instruments.	Anticipation of surgeon's need means faster conclusion of case. The less time patient is under anesthesia, the better.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Lecture & Discussion</u> (Brief) on operative procedure and surgeon's role. Teacher - Describe setting around operative table. Lead discussion. Students - Will do cartoon drawings depicting OR scene. Accent on <u>personnel</u>. Discussion	Should be able to recall by drawing cartoons of occupations in operating room during surgical procedure.	Shafer, et al., <u>Medical-Surgical Nursing</u>. Dictionary (Nurses).
<u>Identification & Unwrapping of Sterile Instruments.</u> Teacher - Explain wrapping technique. Explain autoclaving. Demonstrate proper procedure for opening pack. Students - List reasons for special wrapping technique. Identify instruments. Return demonstration.	Should be able to list reasons for special packing of sterile equipment. Should be able to demonstrate proper procedure for opening pack to maintain sterile conditions. Should be able to list instruments in pack.	Shafer, et al., <u>Medical-Surgical Nursing</u>.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Recovery Room Nurse RN, LVN	Checks vital signs (blood pressure, pulse rate) until stable. Monitors patient until recovered from anesthesia. Also checks circulation. Calls nursing floor, advises when patient is ready to be taken back to room. Records, charts all pertinent information.	Check for signs of shock. Check dressings for any drainage from operation site. Blood pressure and pulse rate before and during surgery to compare with post-op signs. Check circulation. Allow for continuity of care.	Normal vital signs (abnormal will indicate any immediate post-op complications). Skin color and nailbeds should indicate proper oxygenation ("blue" indicates lack of O₂). Chart is a legal document.
Orderly	Returns patient to floor.		

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Floor, RN	Receive and check condition of patient and charts. Check chart for operating room information and M.D. post-op orders. Assign personnel to monitor patient vital signs as ordered.	Type of surgery, anesthesia, patient's reaction during surgery and immediately post-op. See Recovery Room Nurse	
LVN, Aide	Puts patient to bed, takes vital signs, puts side rails up. Checks dressing, and position of patient.	V/S - Same as Recovery Room Nurse Safety measure	

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
<u>Lecture, Discussion, Post-Operative Orders.</u> Teacher - Explain routine post-operative orders. Discuss nurse's role in reassuring patient and family. Encourage students to verbalize own concern regarding surgery.	Should be able to demonstrate understanding of post-operative orders by listing routine orders and reasons for them. Should be able to tell nurse's role in reassuring patient and family by listing ways this can be accomplished. Should be able to list some of the items which could be included on a liquid diet.	Materials: References: Shafer et al., <u>Medical-Surgical Nursing.</u>
<u>Evaluation</u> Teacher - Make evaluation (test) covering highlights of case. Student - Take evaluation test.	Should be able to complete written evaluation covering highlights of the entire case.	

CASE IV

FOOD POISONING

Purpose

To demonstrate the relationship between community environmental problems and community health.

(The Public Health Department is the main resource for information, pamphlets, films, speakers, field experiences for this case.)

To demonstrate the functioning of the Health Department in the area of environmental health.

CASE IV

FOOD POISONING

Objectives

1. The student will be able to name current and projected occupations in the field of environmental health and sanitation.
 - a. The student will be able to describe specific tasks associated with these occupations.
 - b. The student will be able to describe the types of facilities which employ individuals in these occupational areas.
 - c. The student will be able to state the educational background and training for each occupational area.
 - d. The student will be able to describe the career ladder associated with each occupation.
2. The student will be able to describe the methods by which specified community environmental sanitation problems are handled.
3. The student will be able to use an epidemiological approach to solve a hypothetical health problem in the community.
4. The student will be able to measure volume using the metric system.
5. The student will be able to weigh an object using a balance scale.
6. The student will be able to perform the following laboratory tasks:
 - a. Preparation of agar culture medium
 - b. Streaking and incubation of plates
7. The student will be able to use a microscope.

CASE IV

FOOD POISONING

Procedure

To demonstrate the functioning of the Health Department in the area of environmental health, three problems have been selected for student investigation. Student teams will interview Public Health Sanitarians.

Following the investigation of these environmental health problems, the students will employ epidemiological methods for studying an outbreak of a communicable disease. Food poisoning caused by *Salmonella* is selected as the sample. Laboratory techniques, use of the microscope, weighing, measuring, and culturing bacterial organisms are also included.

CASE IV

Investigation of Community Problems

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Set up interviews with Public Health Sanitarians. Write on the blackboard three problems for investigation. Provide guidelines so that student interview teams can formulate questions (see guidelines). Review interview questions with each team. Optional: Film "How Disease Travels" - 11 min. - 1946. Source: California State Department of Public Health, Berkeley, California.	Select problems for investigation. Form interview teams. Meet in teams to formulate questions to be asked in interview with Sanitarian. Interview Sanitarians. Present interview results in class. Formulate task list for a Public Health Sanitarian. List educational requirements and mobility opportunities in this field.	Through an interview with a Sanitarian, the student will be able to obtain information relating to the investigation of an environmental health problem. The student will be able to list the steps taken by the Sanitarian in each of the three problems. The student will be able to state how a community resident can register a complaint which involves an environmental problem.

CASE IV

FOOD POISONING (ENVIRONMENTAL HEALTH AND SANITATION)

Guidelines

Problems for Investigation

1. A case involving an empty field covered with trash and debris which provides a breeding place for rodents and flies and other insects, located next to apartment buildings.
2. A case involving inadequate storage of food and unclean conditions in a market.
3. A case involving hazardous conditions within an apartment building (a violation of the building and safety code).

Investigative Procedure

The class will form three interview teams. Each team will set up an interview with a Sanitarian in the district health center. (Three different Sanitaricians should be involved.) Interviews should be set up on the same day at the same time to facilitate transportation.

Each interview team should meet prior to the interview to develop a list of questions aimed at determining how the Sanitarian functions in relation to each case - i.e., tasks that he performs. The instructor should review the questions which the students have formulated. The students should decide who will ask each question, insuring that each student will have the opportunity to participate. Students will take notebooks to the interview so that answers will be recorded. During the interview, students can also ask for copies of forms used by the Sanitaricians.

Each student should return to class with an outline describing how the Sanitarian functions (i.e., what he does) in relation to the specific case. (Outlines can be worked up at home following the interview.)

At the conclusion of the interview, the students should discuss the job requirements, educational training, and opportunity for mobility of the Sanitarian. Opportunities for entry-level jobs should also be investigated.

Upon returning to class the following day, each group will prepare a presentation for the entire class. Each group will outline (or list) the steps (tasks) taken by the Sanitarian in each case.

Similarities in tasks will be found among cases and should be pointed out by the instructor. Based on these three cases, a list of general functions and tasks of a Public Health Agency Sanitarian can be developed.

These interviews will be followed up by classroom activities involving demonstration and performance of specific simple tasks related to the work of a Sanitarian or Sanitation Aide.

And/Or

If it is not feasible for small groups of students to meet with Sanitarians, a Health Department Sanitarian can be invited to the class or the class could go to the Health Department to view and discuss a series of slides or films which demonstrate the functioning of the department.

DEBRIS ON AN EMPTY FIELD

Teacher Guidelines

Solutions to problems:

Investigation of Community Health Problems: A case involving an empty field covered with trash and debris, which provides a breeding place for rodents and flies and other insects. It is located next to an apartment building.

- A. Through what sources would the Health Department hear about the situation?

The situation would be relayed to the Health Department by either a citizen, a Sanitarian, Councilman, Fire Department or Building Department.

- B. To whom would the case be referred?

The case would be referred to Environmental Sanitation.

- C. Describe the action that would be taken. Include personnel, facilities, tasks, and equipment involved in the case. (Record the information on the form used for case writing.) The action to be taken would follow this sequence:

1. The complaint would be verified. The verification would be made through investigation.
2. There would be an attempt to locate the owner. The neighbors would be asked who owned the lot, or the downtown land office would have the owner's name.
3. After the owner is found, an official notice is issued. A reasonable amount of time is given in order to correct the problem. A due date will be given.
4. The lot will be reinspected on the due date.
5. If the situation has not been righted, an extension of time may or may not be given.
6. If an extension is not permitted, an Office Hearing Notice is issued. This notice requests the owner to appear in the Health Sanitation Office.
7. The Sanitarian in charge of the district and the Senior Sanitarian will confer with the owner to ascertain why the problem has not been corrected.
8. Another time extension may be given.
9. If the owner cannot clean up the lot for some reason, the county will do it, but the cost is rather high.
10. If the owner does not clean the property, a complaint is written, and sent to the District Attorney.

11. The District Attorney may give more time, or take it to court. The owner could receive a sentence, a fine, or both.
12. If the owner does not appear in court, a warrant is issued.

UNSANITARY CONDITIONS IN A MARKET

Teacher Guidelines

1. How does the Health Department hear about the situation? List all possible sources.

Anyone could call in a complaint, e.g., citizen, Sanitarian on duty. Markets are checked every three months.

2. Who handles the case?

District Sanitarian will handle the case.

3. Describe the sequence of events which follows. Include personnel, facilities, tasks, and equipment involved in the case. (Record on case development form.)

An original inspection form is written up, then it is issued to the store.

4. What happens in the case where the market does not comply with a simple warning?

If the situation is not corrected by the due date, an Office Hearing is called.

The owner is asked why the situation has not been corrected.

VIOLATION OF BUILDING AND SAFETY CODE

Teacher Guidelines

1. Through what sources could the Health Department hear about a Building and Safety Code violation, e.g., a faulty staircase and railing?

Citizen complaint, councilman, Building Department.

2. Who in the Health Department would hear about the violation? Who then handles the case?

The area Sanitarian will handle the case.

3. Describe the sequence of events which follow in getting the situation corrected. Include personnel, facilities, equipment, tasks involved in the case. Carry this line of questioning through to a hearing and then to a court case, assuming the owner does not correct the situation after a simple warning. Include a description of how such a case would reach the courts. (Record the information on our case development form.)

The same procedure is followed as in other cases. In 98 percent of the cases an Office Hearing citation is issued.

CASE IV

FOOD POISONING

Epidemiological Investigation of an Outbreak of a Communicable Disease

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
1. Introduce story from <u>Eleven Blue Men</u>, "A Game of Wild Indians," by Berton Roueche. The purpose of this story is: a) To demonstrate how a case of food contamination is traced by epidemiological methods. b) To develop a list of health personnel involved in this kind of epidemiological investigation. Discuss meaning of "Epidemiology." After reading the story, students will: a) List the steps involved in the investigation. b) List the health personnel involved in the investigation. 2. Epidemiological Investigation (Guidelines attached). 3. Film, "An Outbreak of Salmonella," 1954 - 45 min., Calif. State Dept. of Public Health. 4. Discuss Food Contamination and how it can be prevented. Reference: "Foodborne Disease Surveillance in the United States," 1966 & 1967, Woodward, William, et al. in <u>American Journal of Public Health</u>, V. 60 (1): 130-137, Jan. 1970.	1. Read "A Game of Wild Indians" in <u>Eleven Blue Men</u>. 2. List steps involved in an investigation of food contamination. List personnel involved in investigation. List tasks of each person involved in the investigation. 3. Epidemiological Investigation (Teacher will discuss guidelines). Supplementary Reading: "A Family Reunion" in <u>Eleven Blue Men</u>.	The student will be able to list the steps taken, tasks, and personnel involved in an epidemiological investigation. The student will be able to solve a hypothetical case requiring epidemiological investigation.

CASE IV

FOOD POISONING

Epidemiological Investigation of an Outbreak of a Communicable Disease

Teacher Guidelines

- I. Students can divide into two groups: "Investigators" and "Consumers" (or victims). The "victims" make up a story relating what they did on a specific day, what they ate, etc. The result is that all of the victims reported for care at a health facility for symptoms indicating food poisoning.

The "Investigators," in the meantime, develop questions which they will ask the "victims" in order to solve the case. Investigators then interview "victims" to solve case.

OR

- II. Attached is a sample case and guidelines which may be used instead of having students make up the story relating to the outbreak.

Optional: Following the investigation of the outbreak, show film: "An Outbreak of Salmonella," 1954; 45 min.

Source: California State Department of Public Health.

CASE IV

FOOD POISONING

Teacher Guidelines

Sample Case: Food Poisoning

1. Distribute student "Fact Sheet" relating to case.
2. Distribute to student "Instructions for Solving Case."
3. Guide discussion and aid students in formulating questions to be asked of each patient.

List agreed-upon questions on the board. (Suggested sample questions attached.)

- a. Seven students will be selected to act out the part of each of the seven patients. Seven other students will be selected to act as investigators who will interview each case. Hand out the appropriate response sheet to each patient.
- b. Interviews will then be conducted. Fourteen students will participate. The remaining students will divide and act as recorders for each interview.
- c. The results of the interview for each patient will be written on the board.
- d. On the basis of the results, students will determine commonalities and source of infection.

FACT SHEET

A. Map

	1st St.	2nd St.	3rd St.	4th St.	5th St.	6th St.
N. St.	1X	2X 3X				
M St.						
L St.	Steve's Food Market 		 T's T cos	 Laundro- mat	4X Gas Station 	
K St.		M & M Shopping Center 			5X Bill's Bakery 	
J St.	Norman's Grocery			Ice Cream Stand	6X 7X	

1. X indicates a victim or patient.
2. The number next to the X is the case number.

B. History of Illness

1. Symptoms in all patients included diarrhea, nausea, and vomiting.
2. All patients reported symptoms on Saturday, January 30, 1971.
3. Time of occurrence, age of patients, sex of patients.

Case No.	Age (in years)	Sex	Time of Onset
1	15	F	2:30 P.M.
2	50	M	3:00 P.M.
3	11	M	3:10 P.M.
4	25	F	2:00 P.M.
5	30	F	2:00 P.M.
6	16	F	4:00 P.M.
7	15	F	4:05 P.M.

STUDENT INSTRUCTIONS FOR SOLVING CASE

You are a member of a team of health personnel at the local Health Department called upon to investigate this case. You are holding a meeting to decide the steps to be taken in determining what kind of illness has affected these seven people. You decide that you should first interview each patient.

List the questions you would ask each patient and the reason for asking the question. Write this information on a sheet of paper.

SAMPLE QUESTIONS

What symptoms did you have?	
When did you first feel ill?	
How long did you feel ill?	
Where were you that day?	
Did you buy any food that day?	
Where did you buy the food? (Name all the places.)	
Did you eat any of it that day?	
List what you ate.	

RESPONSES FOR PATIENTS

If the interviewer asks any of the following questions you must give the answer listed on this sheet. If the interviewer asks any other questions, you may make up an answer.

The questions will not necessarily be asked in the order given.

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	2:30 P.M.	
How long did you fee ill?	24 hrs.	
Where were you that day?	Shopping at M&M Shopping Center	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	T's Taco Stand Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Tacos Custard Eclair	

QUESTIONS AND RESPONSES

Patient		
What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	3:00 P.M.	
How long did you fee ill?	36 hrs.	
Where were you that day?	Grocery Shop- ping at Norman's Market	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	Bob's Bakery Norman's Market	
Did you eat any of it that day?	Yes	
List what you ate.	Custard Eclair	

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	3:10 P.M.	
How long did you feel ill?	24 hrs.	
Where were you that day?	Out for a walk with my dog.	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Custard Eclair	

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	2:00 P.M.	
How long did you feel ill?	48 hrs.	
Where were you that day?	Shopping with my wife (Case 5)	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	Norman's Market, Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Hamburger, Coffee Custard Eclair	

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	2:00 P.M.	
How long did you feel ill?	48 hrs.	
Where were you that day?	Shopping with my husband (Case 4)	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	Norman's Market, Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Swiss Cheese Sandwich, Coke Custard Eclair	

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	4:00 P.M.	
How long did you feel ill?	28 hrs.	
Where were you that day?	Went to the show with my friend (Case 7)	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	R's Hamburger Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Hamburger, French Fries, Coke, Custard Eclair	

QUESTIONS AND RESPONSES

Patient

What symptoms did you have?	diarrhea nausea vomiting	
When did you first feel ill?	4:05 P.M.	
How long did you feel ill?	30 hrs.	
Where were you that day?	Went to the show with my friend (Case 6)	
Did you buy any food that day?	Yes	
Where did you buy the food? (Name all the places.)	R's Hamburger Stand Bob's Bakery	
Did you eat any of it that day?	Yes	
List what you ate.	Hamburger, French Fries, Root Beer, Custard Eclair	

ENVIRONMENTAL HEALTH AND SANITATION

Test

TEACHER ACTIVITY	STUDENT ACTIVITY	OBJECTIVES
Administer test on Case (attached). Add additional questions to cover material.	Take test.	The student should be able to complete the test accurately.

CASE IV

ENVIRONMENTAL HEALTH AND SANITATION

Match the occupation listed in Column A with the task in Column B by placing the appropriate number in Column A next to the task in Column B. You may use the occupations in Column A more than once.

Column A

Column B

- | | | |
|---|-------|--|
| 1. Epidemiologist | _____ | Performs tests which can determine the presence of a harmful organism in food. |
| 2. Sanitarian | _____ | A person who has been specially trained to investigate outbreaks of communicable diseases. |
| 3. Health Department Clerk (Epidemiology Section) | _____ | Investigates markets and restaurants to check for cleanliness, proper storage of foods, etc. |
| 4. Laboratory Technician | _____ | Investigates complaints relating to unsafe housing conditions. |
| 5. Physician | _____ | Dispatches copies of reports of outbreaks of communicable diseases and keeps records. |
| | _____ | Examines and diagnoses patient. |
| | _____ | Can issue an Office Hearing Notice for a violation of the Building and Safety Code. |

The railing on the stairway of your apartment building is broken. You feel that it is dangerous to hold onto it while using the staircase. You mentioned this to the owner about 4 weeks ago, but so far the railing has not been fixed.

1. To whom would you now go with your complaint?
2. List in order two things that would be done after you have filed the complaint.
 - 1.
 - 2.
3. Under what conditions would the owner be issued an Office Hearing Notice?
4. Under what conditions would the owner be taken to court?

Friday evening, about 2 hours after you came home from the football game, you suddenly got a stomach ache and felt nauseated. You went to bed and by morning felt much better.

In the morning you noticed an article in the newspaper which stated that the County Hospital Emergency Room was full last night with students from your school and the school you played against. All the students had similar feelings of nausea and were vomiting. Some also had diarrhea. Other students had less severe symptoms like yours.

1. List the steps you would take to see if this was an outbreak of food poisoning due to some thing that was sold at the game.

2. List 2 ways of preventing food contamination.

Bacteriological Techniques for
Culturing Organisms

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Discuss programmed Instructional Units. The Metric System: Weight Volume Explain that the use of the metric system for weighing substances and measuring volume is essential for many allied health occupations. Assemble equipment and materials for preparing agar culture medium. (Refer to a bacteriology text.) Leave an item such as a custard éclair or bottle of milk out of the refrigerator so that organisms will grow in it which can be cultured. Set up laboratory, assign students the following tasks 1. Preparing agar 2. Pouring agar into Petri dishes. Demonstrate streaking of plates with a loop (streak with growth on custard éclairs or in milk, and streak control plates with fresh refrigerated custard or milk). Label plates. Discuss the microscope. Demonstrate microscopic techniques. Distribute programmed instructional unit - The Microscope (page 342). <u>Or</u> use any available guides on use of the microscope.	Work on programmed instructional units. Take pretest, and upon completion of the unit take post-test. Units: The Metric System: Weight Volume Prepare agar and pour into Petri dishes as per teacher directions. Streak plates using a loop as instructed. Label plates as follows: <u>Experimental</u>: unrefrigerated custard or milk. <u>Control</u>: refrigerated custard or milk. Incubate plates. Observe teacher demonstration of microscope. Work on programmed instructional unit - The Microscope.	The student will be able to complete the units on the Metric System: Weight Volume The student will be able to prepare an agar culture medium and prepare Petri dishes for streaking. The student will be able to streak a plate. The student will be able to complete successfully the post test on microscope.

Bacteriological Techniques for

Culturing Organisms

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Assist students in removing plates from incubator and examining plates under the microscope. Discuss results. Supplementary: Develop additional exercises using the microscope. Show film - "In a Medical Laboratory" 28 min. - 1966. Source: California State Department of Public Health.	Take plates out of the incubator after 48 hours. Examine growth on plates. Compare growth on plates from unrefrigerated custard or milk with refrigerated specimens. Report results. View Film: "In a Medical Laboratory."	The student will be able to examine the plates with a microscope and compare the amount of growth. The student will be able to list the occupations in medical laboratories and the tasks performed as discussed in one film and supplemented by field observations.

METRIC SYSTEM--WEIGHT

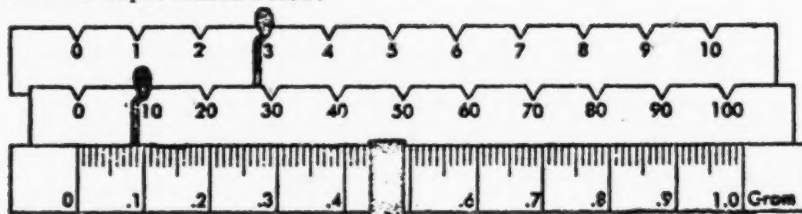
Weigh objects to the nearest 0.01 gram using a double or triple beam balance and express weight in terms of grams.

Specific Objectives

1. Know the names of the following basic parts of a balance sufficiently well to learn to use the balance.
 - A. Beams
 - B. Pointer
 - C. Scale
 - D. Knurled nuts
 - E. Poise or rider
2. Adjust the pointer to zero on the scale.
3. Weigh an object to the nearest 0.01 grams.

1. Locate a double or triple beam balance at the side of the room. Bring it to your desk using both hands to prevent damage from excess movement of the platforms or pans.
2. Place it on your desk with BEAMS facing you.
3. The sliding weights are called the POISE or the RIDERS.
4. Move all the poise along the beam to the left, to the zero position. The weights are read from the left side of the poise.
5. The POINTER should now be at the zero position on the SCALE.
6. If the pointer is not at zero, balance the scale by small adjustments of the knurled nuts until the pointer swings equally to the right and left of the center mark.
7. Notice that the beams are marked off in units from 0.1 gram to 100 gram.
8. On the beam with divisions from 0.1 to 1.0 grams, each mark represents 0.01 gram.

9. Look at the beams represented below.



On the beam marked from 0 - 10 grams, how many grams are indicated? _____

On the beam marked from 0 - 100 grams, how many grams are indicated? _____

On the beam marked from 0 - 1.0 grams, how many grams are indicated? (Remember to read to the left of the poise) _____

What is the total weight indicated? _____

10. Can you find these parts of the balance? Point them out to your lab partner or some one you know in the lab.

- | | |
|-----------------|----------|
| A. Pointer | D. Beams |
| B. Scale | E. Poise |
| C. Knurled nuts | |

11. Can you adjust the zero point on the scale? Demonstrate your ability to your lab partner or friend.

12. Now you are ready to begin to weigh objects.

Try to judge the size of the object and begin on a beam that you think is close to the real weight of the object. OR begin with the highest (100 gms) beam.

13. Place an object to be weighed on the left platform or pan.
14. Slide the poise or rider along the beam until the pointer swings across the scale. Then return the poise to the next lower unit. GO TO THE NEXT LOWER BEAM (10 gms).
15. Move the poise slowly along the beam until the pointer swings across the scale. Then return this poise to the next lower unit. GO TO THE NEXT LOWER BEAM (1 gram).
16. Move this poise slowly along the beam until the pointer approaches zero.
17. Read the weight on each beam as the number to the left of the poise.
18. Read the accumulated weights directly from the beams by adding the amounts on all beams.

EXAMPLE:	beam recording (0 - 100 gms) reads 20 gms
	beam recording (0 - 10 gms) reads 8 gms
	beam recording (0 - 1.0 gms) reads .4 gms
	Total weight 28.4 gms

GO TO THE EXERCISE, PRACTICE IN WEIGHING

PRACTICE IN WEIGHING

A. Weigh the following objects and record their weights to the nearest 0.01 gm.

1. Penny _____
2. Microscope slide _____
3. Straight or common pin _____
4. Paper clip _____
5. Cork _____
6. Rubber stopper _____

B. Since small errors often are not noticed, reweigh all the objects together. What weight differences do you notice between the total weight _____ and the sum of their individual weights? _____ difference _____.

C. How do you account for this? _____

Now ask your lab partner to check answers with you. Demonstrate to him that you know how to weigh objects.

ANSWER SHEET
METRIC SYSTEM WEIGHT

9. 3 grams
10 grams
.45 grams
13.45 grams

Practice in Weighing

- C. 1. Errors can be accumulated, small errors can be added to make large errors.
2. Errors can cancel out each other in accumulated data.

POST TEST WEIGHING

Demonstrate to the instructor that you can weigh objects to the nearest 0.01 grams using the double or triple beam balance.

Weigh the following objects:

1. A block of wood provided by the instructor _____
2. A microscope slide _____

METRIC SYSTEM--VOLUME

Measure the volume of liquids and solids to the nearest 1.0 ml. using a graduated cylinder, and express metric units in terms of milliliters and liters.

Specific Objectives

To use and express the following metric terms and equivalents:

1000 milliliters (ml) = 1 liter (l)

To convert milliliters to liters, divide by 1000

To convert liters to milliliters, multiply by 1000

1. Observe the graduated cylinders provided. Notice the markings on the side; one reads upward; the other reads downward. Some cylinders are marked in increases of two ml., others are marked in increases of one. Determine the intervals of your cylinders.
 2. On your graduated cylinder, the marks indicate increases of _____.
 3. Note the capacity of the cylinders; use one that most closely equals what you want to measure.
 4. The capacity of the graduated cylinder that you have is _____ ml.
 5. Scale that reads upward tells you how full you have the cylinder; the scale that reads downward tells you how much you have poured out.
 6. Pour water into the graduated cylinder until you have measured 8 ml. of water.
 7. Read the amount of water by observing the level of the curved surface of the liquid, the MENISCUS (me-nis-cus). Observe the cylinder at eye level and read the amount at the bottom of the meniscus. NOTE: cylinders made from new plastics may not form a meniscus.
 8. Could you use this technique for measuring the volume of liquid? to measure the volume of an irregular solid? How would you do it? _____

 9. Did you ever notice that the water in the bathtub rises when you get in? Have you noticed that when you put ice cubes in a beverage the level of water rises. Do you now have a clue? _____

- RULE: An object will displace a volume of water equal to its own volume.
10. Place an object in the graduated cylinder; the water will rise an amount equal to the volume displaced by the object.
 11. What was the volume of the object? _____ ml.
 12. A liter of liquid contains 1000 milliliters, therefore, to convert milliliters to liters, divide by 1000.
 13. Change the following milliliters to liters:
 - A. 500 ml = _____ liters
 - B. 1200 ml = _____ liters
 14. Since there are 1000 milliliters in one liter, to convert liters to milliliters, multiply by 1000.
 15. Change the following liters to milliliters:
 - A. .6 liters = _____ ml
 - B. 3 liters = _____ ml

POST TEST VOLUME--LIQUIDS

Demonstrate to the instructor that you can measure an unknown volume of liquid using a graduated cylinder, to the nearest 1.0 ml.

1. The instructor will have several test tubes of liquids measured to a predetermined level. The student will measure these in a graduated cylinder.
2. The student will determine the volume of a piece of water plant using the water displacement technique.

ANSWER SHEET

METRIC SYSTEM VOLUME

13. .5 liters
1.2 liters

15. 600 ml.
3000 ml.

THE MICROSCOPE

This program is designed to teach you to use the microscope.

When you have learned to do this easily, you will be able to explore the world of microscopic life.

OBJECTIVES

At the completion of this exercise you will be able to:

1. Identify the basic parts of the microscope.
2. State the functions of the basic parts of the microscope.
3. Focus, using the scanning or low power objectives on a microscope slide preparation.
4. Use the mechanical stage to locate a specimen or specific portion of the slide.
5. Change objectives and make necessary light and focus corrections for higher power objectives.
6. Determine the total magnification of the image under each objective.
7. Estimate the relative size of objects under each magnification.
8. Express confidence in using this instrument.

90% of the students should be able to be 90% effective.

Specific Objectives

1. Identify the basic parts of the microscope.
 - A. Ocular - eyepiece
 - B. Revolving Nosepiece
 - C. Stage
 - D. Microscope slide clamp
 - E. Coarse adjustment
 - F. Fine adjustment
 - G. Objectives - scanning, low power, high power
 - H. Lamp and light switch
 - I. Condenser
 - J. Light adjustment lever of iris diaphragm
 - K. Mechanical stage and adjustment

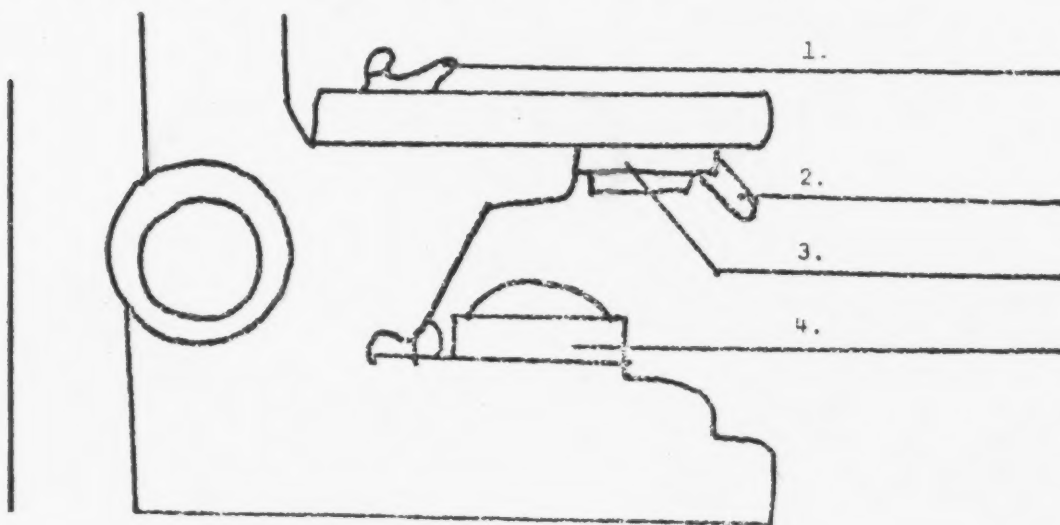
2. Relate functions of the parts (see 1) of the microscope.
 - A. Ocular - magnification lens (variable 5X, 10X, 15X, etc.)
 - B. Nosepiece - to change objectives
 - C. Stage - platform for the support of the slides
 - D. Microscope slide clamp - to hold the slide in position on the stage
 - E. Coarse adjustment - general focus
 - F. Fine adjustment - fine focus
 - G. Objectives - scanning, low power, high power magnification
 - H. Lamp and switch - light source
 - I. Condenser - focus light
 - J. Light adjustment lever of iris diaphragm - provide adjustment for the amount of light
 - K. Mechanical stage and adjustment - to move the slide on the stage

PARTS OF THE MICROSCOPE

Each of the series of statements and drawings below is called a frame. A frame contains information and blank spaces for you to write in the words that are missing. The frames are designed to help you identify key parts of the microscope. The correct answers are on page 344.

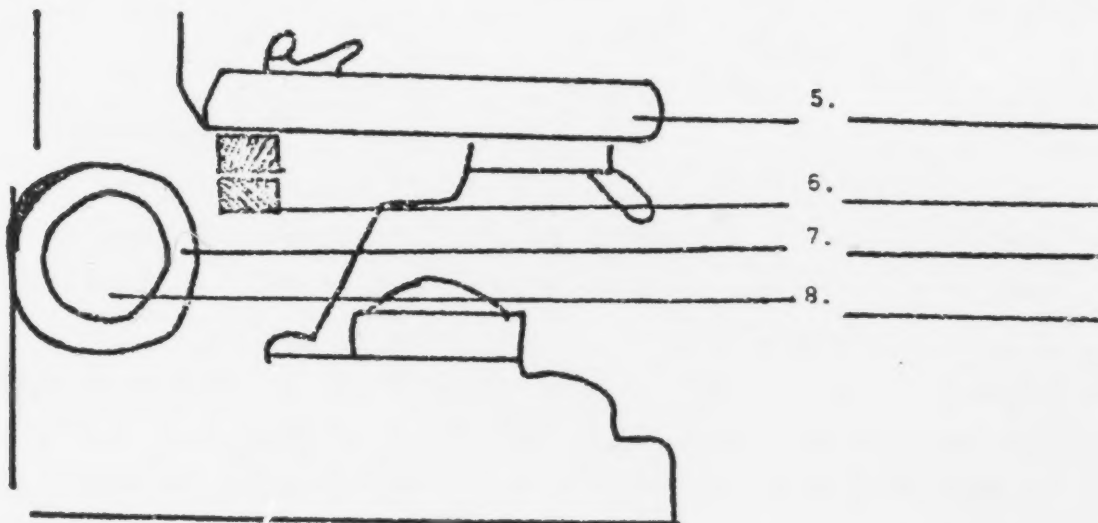
Remember, this is not a test. You should be able to fill in the correct number in each frame. If from time to time you feel you need to look ahead, take a moment to figure out what you did not understand in the frame that made it necessary for you to look ahead.

Look at this drawing. It represents one portion of your microscope.



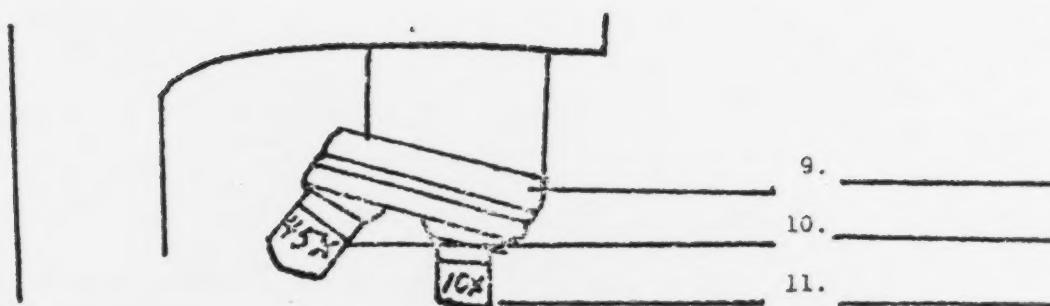
1. Look at your microscope and at the above drawing. One part should have a LIGHT SOURCE. It is numbered _____. (the switch for the light is in back of the light)
2. Directly above the light source is the CONDENSER and the IRIS DIAPHRAGM. This controls the amount of light directed through the lenses. The condenser and diaphragm are labeled _____.
3. Find the LEVER that permits you to make the opening in the diaphragm larger or smaller. It is labeled _____.
4. The slide is held in place by a SPRING CLAMP. It is labeled 1 in the diaphragm. Use your right thumb to release the clamp.

USE THE DIAGRAM BELOW TO LABEL THE PARTS OF THE MICROSCOPE THAT YOU HAVE LEARNED SO FAR.



5. Find the round knobs labeled 7 and 8 above. The larger one is the COARSE ADJUSTMENT. This permits you to obtain a general focus. Write the number of the coarse adjustment _____
6. The smaller knob is the FINE ADJUSTMENT. This helps you to see detail clearly. Write the number of the fine adjustment _____.
7. Objects to be viewed are supported on a platform with an opening through it. This platform is called a STAGE. The stage is indicated by number _____ in the above diagram.
8. Beneath and to the left of the stage are two mechanical stage knobs, number _____ in the diagram. These move the slide from right to left and across the stage from top to bottom. Use your left hand to move these knobs.

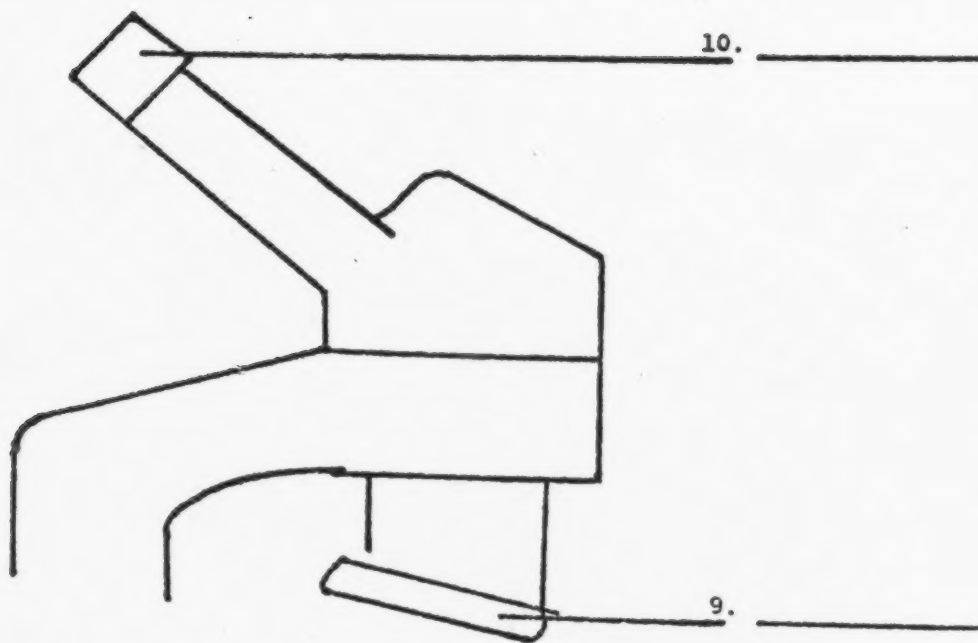
WRITE THE NAMES OF THE PARTS THAT YOU HAVE JUST LEARNED ON THE SPACES PROVIDED ON THE ABOVE DIAGRAM.



9. On your microscope, the LOW POWER OBJECTIVE can be identified by green color code bands on it. This tube holds a lens that will magnify objects 10 times (10X). Number _____ indicates this object.
10. The HIGH POWER OBJECTIVE is marked with yellow color code bands. It will magnify objects 45 times (45X). Number _____ indicates this objective.
11. All of the objectives are mounted on the REVOLVING NOSEPIECE. This enables you to change the objectives from one power to the other. Write the number of the revolving nose-piece. _____
12. On your microscope you may find two other objectives. The shortest objective marked 4X is designed to help you locate quickly the area you wish to study. This is the SCANNING OBJECTIVE. You will use this objective often.

The other objective marked with the red color code bands is the OIL IMMERSION OBJECTIVE; you will learn to use this later in the course or in other courses.

LABEL THE ABOVE DIAGRAM WITH THE PARTS THAT YOU HAVE LEARNED.



13. The OCULAR OR EYEPIECE is a second lens designed to magnify the image projected upward by the objectives. It magnifies 10 times (10X) on our microscopes. It is the part that you look into. Write the number of the eyepiece _____.

ANSWER SHEET

Question Number

1
2
3
5
6
7
8
9
10
11
13

Answer Number

4
3
2
7
8
5
6
11
10
9
10

CASE V

EMPHYSEMA

Purpose

To demonstrate the relationship of pollution to ecology and health.

To illustrate the general problem by using a single type of pollution as a model of the role of pollution as a causative agent in a specific disease.

To integrate knowledge of the respiratory system with specific tasks associated with respiratory problems.

CASE V

EMPHYSEMA

Objectives

Students, in teams of two, should be able to develop small exhibits on pollution and ecology which shall be suitable for display and meet the requirements described by the teacher.

The student should be able to describe the functions of the personnel involved in treatment of a hypothetical case of emphysema.

The student should be able to perform tasks specified within the framework of the case.

The student should be able to analyze the relationship between specified tasks or jobs and patient care.

The student should be able to perform basic first aid tasks related to resuscitation.

CASE IV

EMPHYSEMA

Procedure

This case has been designed to relate a specific instance of pollution as a causative agent in disease to the general problem of pollution as it relates to ecology.

The specific case history, therefore, is preceded by a class ecology exhibit in which many pollution problems are presented.

Explain the exhibit requirements to the class, and assign the teams to their tasks. Then present the specific emphysema case and follow the guidelines relating to its presentation.

POLLUTION AND HEALTH

Optional Activity

Introduction

The activity, Pollution and Health, can be used as an introduction to the study of ecology and the effect of polluting agents on all life forms.

The students will explore various pollution problems in detail during the research and development of their individual ecology exhibits. Therefore, if the Pollution and Health exercise is used, the instructor should not spend too much class time on the general aspects of pollution.

POLLUTION AND HEALTH

Optional

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Introductory activity: Pollution Problems class discussion.	Class discussion on pollution and its effects.	The student should be able to discuss how man's technology and increased population have compounded environmental pollution problems.

OPTIONAL TEACHER ACTIVITY

Pollution Problems

Guidelines

- I. The instructor will elicit the students' concepts of pollution, in answer to the question:
What is Pollution?

- A. General points should include:

1. Pollutants come primarily from man-made sources.
2. The effects of pollutants on man, animals, and plants are harmful.
3. Pollutants can upset the delicate balance among organisms and between organisms and the environment.

- B. The instructor should at this point introduce the broad area of ecology (the interrelationship of living organisms with each other and with the environment, the dependence of man on nature, etc.).

1. The importance of not disturbing the balance of nature must be made clear.
2. This fact is not apparent to government and industry; therefore we see the creation of new jobs to monitor the effects of technology and increased population on the quality of life.

- C. Refer back to the concept of pollution as defined by the class and ask them to name as many pollutants as they can.

Record the answers on the blackboard under the heading Pollutant, then add three more columns and head these with the following questions:

1. What effect does it have on the environment?
2. Who is affected?
3. What body systems in man are affected?

You should conclude with a chart which the students, through guided discussion, fill in.*

*See example on following page (this chart is not complete--you can make it fuller).

POLLUTANTS	ENVIRONMENTAL EFFECT	WHO AFFECTED	BODY SYSTEM
Air Pollution lead CO ₂ etc.	Increased CO ₂ content in the air increases the temperature of the atmosphere; lead can affect life in the oceans.	Man Plants * Animals	Respiratory Circulatory
Noise		Man Animals	Sensory (psychological mental health) i.e., what if you lived next to freeway?
Solid Wastes	Can increase rodent problems and fly breeding. Used for land fill.	Man	(possible source various diseases which can affect man)
Pesticides	Many remain in the soil-- indestructable.	Man Animals	Nervous system
Sewage	Disturbs balance of life in the ocean, rivers, lakes	Man Fish Plants	Disease producing
Mercury	Methyl mercury can remain in the water--as a potential hazard.	Man Fish Aquatic plants	Nervous system
Phosphates	Reduce the O ₂ content of the water, killing the fish	Man Fish	
Thermal	Temperature of water is raised, killing various species.	Fish Plants	
Radiation	Fallout--Can remain in the environment, i.e., air, water, for long periods of time.	Man Plants	Blood-forming organs
Over-Population	The using up of limited resources of air, water, land. Pollution of the environment.	Man Animals Plants	Life

*Air Pollution Injury to Vegetation, Public Health Service, National Air Pollution on Control Administration. Raleigh, North Carolina, 1970.
A beautiful, illustrated explanation of the effect of air pollution on plants. The photographs and diagrams are in color and easy to follow.

ECOLOGY EXHIBIT

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Instructor will explain exhibit rules to student and assist as needed. Exhibits are to be prepared in class.	The students will research and prepare exhibit according to directions.	The student should be able to: 1. Clearly define a pollution problem. 2. Show how it affects the environment or man. 3. Indicate a possible solution or way to handle the problem.

ECOLOGY EXHIBIT

Instructor Guidelines

- A. Teams of two students will develop exhibits. Pair a good reader with a poor one.
- B. The instructor will review the points that must be included in the exhibit and be sure the student has a clear understanding of what is expected of him.
- C. The instructor will assist the students in selecting materials, providing ideas for ways to exploit the problem, and/or allowing library time for research. Class time should also be set aside for this activity.
- D. A maximum of two weeks is allotted to this project, after which all the exhibits are put on view for the class and/or the school.

ECOLOGY EXHIBIT

Exhibit Rules

Two students will develop a small exhibit on a pollution problem of their choice.

1. A cardboard carton (from the market) will form the basis of the exhibit; more than one may be used.
2. The students will select a topic from those listed on the following sheet.
3. The students will spend two to three hours (one hour of class time on consecutive days) researching their problem.

The exhibit must include these points:

1. A clear definition of the problem, e.g., what it is, and some way to illustrate it.
2. Significance of the problem in terms of how it affects the environment, including man.
3. How to deal with the problem: possible solutions.
4. Economic cost to society (if possible).

Some printed or written material must be included, such as posters, handbills, fact sheets, signs, etc.

The students are free to use any combination of methods; e.g., cutouts from magazines, newspapers, samples of pollutants, etc.

ECOLOGY EXHIBIT

Student Activity

1. Students will select a specific pollution problem and, working in groups of two, prepare an exhibit on that health problem.
2. List of topics
 - a. Noise
 - b. Mercury pollution
 - c. Phosphate problems caused by detergents
 - d. Sewage
 - e. Pesticides
 - f. Solid wastes
 - g. Air pollution
 - h. Population explosion--effects on environment
 - i. Radiation pollution
3. Materials on all these topics are to be made available to the students--plus library time so that they can research their topics.

RESPIRATORY DISEASES

Content Outline

- I. Air Pollution and Respiratory Diseases
 - A. There are documented disasters, resulting from severe air pollution
 1. Meuse River Valley, Belgium, 1930
 2. Donora, Pennsylvania, 1948
 3. London, England, 1952
 - B. Causes of Air Pollution
 1. Technical
 - a. Automobiles
 - b. Factories
 - c. Airplanes (jets)
 2. Temperature Inversion
 3. Composition of Los Angeles Smog
 - C. What is being done to cope with the problem
 1. Role of APCD (Air Pollution Control District)
 - a. Function
 - b. Personnel
 - c. Future goals
 2. Some operations now in effect in California
 - a. Smog devices for cars and factories
 - b. Smog alerts
 - c. Low-leaded fuels available
 3. Future Possibilities
 - a. Banning of cars in densely populated urban areas.
 - b. Banning of lead in gasoline.
 - c. Search for different fuels, etc.

II. Individuals who would be the first affected by a heavy smog condition.

(Ask the students to refer to their knowledge gained from the Donora Fog play. Who were the first ones to need help?)

- A. The elderly or those with a history of heart condition.
- B. People with a history of respiratory illness. (Include relationship of smoking to these respiratory diseases.)
 - 1. Asthma
 - 2. Chronic bronchitis
 - 3. Emphysema
 - 4. Tuberculosis
- C. Lasting effects on the population exposed at Donora.
- D. Students asked to forego gym class and physical exertion on heavy smog days. Relationship between physical exertion, oxygen need, and irritation to lungs caused by smog.

III. Where people with respiratory difficulties would go for aid.

- A. Private Physician
- B. Clinics
- C. Hospitals
- D. Fire Department Rescue Unit and other Emergency Units.

IV. Case Studies

- A. Emphysema
- B. Tuberculosis

RESPIRATORY DISEASES

Supplementary Teacher Activity

Show Film: "The Slow Guillotine." Summary of air pollution problem. Comprehensive look at the air pollution problem including positive suggestions for control. Narrated by Jack Lemmon.

Source: KNBC, Public Affairs Office.

RESPIRATORY DISEASES

Teacher Activity

Assignment of Supplementary Reading for Student

1. "Dirty Skies," excerpt from Crisis in Our Cities, by Lewis Herber, pages 27-33.

Dramatic account of the disastrous effects of the London smog of 1952, similar to the Donora Fog, but on a larger scale.

2. "Who Killed Mankind," by Philip Wylie, two-part series; Today's Health, October, November, 1970.

Fictional look at the future which is in store for us unless many of our present environmental problems are solved. A very interesting story, but difficult for students who are not up to their grade level in reading.

POLLUTION

Instructor Guidelines and Information

Motivational Activity

- I. Introduce the topic with the playlet: "Donora Fog," adapted from "The Fog," by Berton Roueche.
 - A. Select nine students who will read their parts before the class.
 1. The scene is set in Donora, Pennsylvania.
 2. A student playing the Reporter carries the continuity. Others in the case are residents of Donora who tell their story.

(It would be advisable to give copies of the play to the students the day before they are to enact it. This will give them some time to become familiar with the vocabulary.)
 - B. After the play, the teacher can emphasize the disaster by stating the fact that Donora could normally expect to have one or two deaths in a comparable period.
- II. Follow up on "Donora Fog."

Discussion:

 - A. Other major tragedies caused by air pollution.
 1. 1930: The first such recorded disaster occurred in the Meuse River Valley, Belgium.

Sixty-three people died; 6,000 fell ill from industrial pollution.
 2. 1952: In London, England, 4,000 people died from a severe smog attack, the worst air pollution disaster in medical history.*

*Lewis Herber, Crisis in Our Cities, pp. 27-33.

B. A study covering a ten-year period (1948-1957) was made of the health and life span of the survivors of the Donora fog.

The study clearly showed that the effects of the fog were long lasting.

1. Residents who suffered acute illness during the 1948 smog had higher death rates and experienced heart and respiratory disease in greater numbers than others living in the community.
 2. Death and subsequent disease rates were highest among Donora residents who reported the most severe reactions in the fateful days of 1948.
- C. In 1959 an intensive study was made of two neighboring communities in central Pennsylvania four miles apart. Populations were identical but one had three times greater air pollution than the other.

The populations differed significantly in lung capacity and breathing ability.*

*Lewis Herber, Crisis in Our Cities, pp. 61-62.

Dramatis Personnae

- Dr. Ralph Koehler, 48
- Dr. Edward Roth, 45 -- His Associate
- Helen Stack, Receptionist, Secretary, Nurse
- August Chambon, Mayor of Donora
- John Volk, Chief Fireman of Donora
- Russel Davis, His Assistant
- Rudolph Schmerka, Undertaker of Donora
- Cora Vernon, Red Cross Director
- Reporter for the Donora Times

Donora Fog

REPORTER:

Donora, Pennsylvania is twenty-eight miles south of Pittsburgh on the Monongahela River. It's a harsh, gritty town of 12,300 people, most of whom work in the local steel mill. The huge mill that bristles with hundred-foot-high smoke stacks pour out great plumes of black, red, and yellow smoke. Donora has no radio or TV station. There is one newspaper. I'm a reporter for the Donora Times.

Donora isn't famous for much, but one thing we have more of than any place I know is fog and smoke. People are used to it, and even though it is sometimes so dim in town you can't see your hand in front of your face at high noon, we don't pay much attention to it. But October, 1948, was different. Everyone noticed how thick and sickly the air was and how dark it was on Main Street at two in the afternoon.

DR. KOEHLER:

I've lived in Donora all my life and I've practiced medicine here for 25 years, but I never saw anything like that fog. I happened to look out my window and saw a freight train creeping along the river bank just south of town. It was the smoke that caught my eye. The smoke was pouring out of the stack but it didn't rise. I mean it didn't go up at all. It just spilled out over the lip of the stack like a liquid and rolled down to the ground and lay there. My God, it just lay there! I've got a heart condition, and I was so upset my heart began to act up. I had to sit down and rest for a minute.

REPORTER:

(Aside, from the left of the stage)
We didn't know it then but Donora was having what meteorologists call a temperature inversion. That's a temporary reversal of the normal atmospheric condition, in which the air near the ground is warmer than the air higher up. It sort of keeps the air still and doesn't let the smoke and fumes be carried away. It was a pretty rare condition for Donora, but I understand it is very common in Los Angeles. This all came out at the investigation, later, after the tragedy.

HELEN STACK:

I am a nurse/receptionist for Dr. Koehler and Dr. Roth. When I arrived that morning I noticed that everything was smeared with grime and dirt. It was not ordinary dirt, it was white and scummy-looking, and I remember thinking it was like ash

from the mill. My first cigarette that morning tasted awful and I had to put it out--it almost made me sick.

Our first patient came in gasping for breath and wheezing. He was the first of a steady stream of asthmatics and older people suffering from respiratory complaints.

DR. ROTH: I started to get patients in my office from three that afternoon. It was always the same story--coughing, choking, pain in the abdomen--sometimes nausea--trouble breathing--it was pretty bad. My phone started to ring and didn't stop all night. People all over town were suffering from the fog--choking and feeling miserable. I know that what ever it was, we were up against something serious. I was worried but not bewildered--it was obvious, all the symptoms pointed to it--the fog and smoke were to blame.

HELEN STACK: Both Dr. Koehler and Dr. Roth were pretty sick themselves that night, I don't know how they kept going. But they did--went on seeing patients all over town--coming back to the office to pick up drugs and supplies. I just stuck by the phone and tried to help the people who dragged themselves into the office looking for help.

REPORTER: It wasn't only the doctors in town who were busy. People were frightened and panicky, and turned to anyone who could give them some help. Our Fire Chief, John Volk and his Assistant Russel Davis were pretty busy, too.

JOHN VOLK: Russ and I were just setting down to have some coffee in the fire house when the phone rang. It wasn't any fire, though--it was a fellow up the street. The fog had got him. He said he was choking to death, couldn't get a doctor, and could he use our inhalator.

RUSSEL DAVIS: That guy was only the first. From then on it was one emergency call after another. I don't know how many calls we had, but I do know this: we used up all the oxygen we had on hand and had to send out for more from neighboring towns. I guess there must have been hundreds that got sick because of that fog.

REPORTER: That wasn't the half of it. It was really thousands rather than hundreds that had been ill during the fog. Nobody in town seemed to realize what was really happening. Everybody seemed to

think he was the only sick man. The investigation later showed how bad it really was. To the surprise of no one it was established that the affliction was an irritation of the respiratory tract. Its severity increased in proportion to the age of the victim and his pre-disposition to cardio-respiratory ailments. The ultimate cause of death was suffocation. Oh yes, in case you didn't know, we had deaths--many of them. Our undertaker, Rudolph Schmerka, can attest to that. He sure spent a couple of busy days.

RUDOLPH SCHMERKA: I remember the first one. I was called early in the morning, but in my profession you're used to being roused at night. But I was really surprised when thirty minutes later I was notified of another death. That doesn't usually happen in a small town like Donora. I was pretty sick myself that night, coughing and choking. It was all I could do to drag myself around to pick up the bodies. By ten the next morning I had nine bodies waiting here and I heard later that the two other morticians in town had one apiece.

REPORTER: Actually 6,000 people became ill and a total of twenty people died in that fog before it was all over. It might have been much worse if it hadn't been for the fine work of the doctors and John and Cora Vernon, the Red Cross Directors.

CORA VERNON: We don't have a hospital here, so my husband and I set up an emergency aid station in the Community Center. The American Legion arranged to have cars picking up patients and volunteer nurses to help out. The main thing was to try to give our town doctors some rest. They had been working steady for 36 hours or more. After I heard that people were dying and I realized how bad things were, I did the only things I could think of. I notified the State Health Department and I called a special meeting of the town council and the local Board of Health. I also notified the mill officials and I called a meeting for the first thing Sunday morning. I wanted to get the health officials, town administrators, and mill people all together so that we could find out what was causing this thing and what we could do to stop it.

MAYOR CHAMBON: As Mayor of Donora, I was at the meeting with the health and mill officials the next morning. We talked about the smoke from the mill and how that mixed with the fog and was probably the cause of the tragedy. I asked them to shut down the mill for the duration of the fog.

The mill officials told me they already had done it. They said they closed down even though it wasn't the mill smoke that was to blame, but I had a pretty good idea that the mill smoke was the main cause of our "killer fog."

REPORTER:

The investigation of the disaster lasted over a year--it failed to determine the exact cause of the tragedy. It did show that although no single gas coming out of the mill's smoke stacks could have caused the "killer fog" by itself--the combination of all of the pollutants probably did it.

MAYOR CHAMBON:

That investigation was probably the world's first examination of the problem of air pollution--and maybe one of the most thorough inquiries ever made in the field of public health. It involved the Bureau of Industrial Hygiene of the Pennsylvania Department of Health and the Division of Industrial Hygiene of the United States Public Health Service. There were nine engineers, seven physicians, six nurses, five chemists, three statisticians, two meteorologists, two dentists, and a veterinarian. It sure was thorough, and when it was all over Dr. Leonard Sheele, Surgeon General of the Service said, "One of the most important results of the study was to show us what we do not know."

REPORTER:

We know a lot more about air pollution now and about what causes it. And there's a lot more of it all over the country. I pray that no other city has a "killer fog" like Donora. But, who knows--if the weather conditions are just right it could happen again. Maybe in your town!

CASE V

EMPHYSEMA

Health Problem:

Breathing difficulty due to Emphysema

Facility:

Hospital, outpatient clinic

Profile

Alan Conrad was 59 years old. A history of heavy smoking from the age of 17 had contributed to making him an emphysema victim by the age of 54. He successfully fought the cigarette addiction, but the damage to his lungs had been done and was irreversible.

After the onset of this disease his life was a constant fight for survival, one of trying to maintain an adequate oxygen supply for his body. He could not work and could walk only a few blocks at a time. The slight increase in oxygen demand necessitated by simple physical exertion was beyond the capacity of his deteriorated lungs.

He lived a careful life, under constant medical supervision. When he awakened on the morning of October 14, he knew that the day would be hard for him. He could already see the first film of smog coating the city.

By 11:00 a.m., the smog was so heavy that radio broadcasters were warning people not to use their cars if not absolutely necessary.

Alan began to have more difficulty than usual in breathing and by 1:00 p.m., he knew he was in trouble. He began to gasp for breath and phoned his doctor. He was told to go immediately to the hospital outpatient clinic for emergency treatment. His doctor would meet him there.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Admitting Clerk	Covered in Case II		
Nurse	Immediately refers patient to chest physician. Takes Respiration Rate Observes patient's signs and symptoms. Records symptoms on forms. Assists physician and inhalation therapist.	Respiratory system Disease process: Pulmonary Emphysema Anatomic change in the lungs, shows itself in shortness of breath. <u>The Important Signs and Symptoms</u> Labored or rapid breathing, anxiety, agitation, panic cyanosis. Wheezing and other noisy breathing. Tachycardia and other cardiac arrhythmia.	No single factor can be said to be the original cause. New findings indicate possibility of heredity susceptibility, condition aggravated by air pollution. Cigarette smoking is a definite factor. Emphysema is the fastest growing cause of death in the U.S. In 1966--20,252 deaths--a 17-fold increase since 1950. Urban death rate twice as high as rural.
Chest Physician	Examines patient, orders the specific forms of therapy and medication.	Techniques available to aid the patient, e.g., Tracheotomy.	Diseases of the chest and their relationship to the total function of the body.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor will review respiratory system: parts and function relevance to pulmonary disorders. Review: Respiration Rate; stress its particulars. Assign student worksheet on Pulse and Respiration. Instructor will review the disease condition: emphysema. a) Physical changes in lung b) Contributory causes c) Problems of O₂ and CO₂ exchange Read in class: "I'm Joe's Lung," Supplementary Activities. a) Lung capacity experiment: Who has the largest lung capacity? p. 18. b) Film: "Breath of Life," (16mm, color).	The student should be able to name the parts of the respiratory system and their functions. The student should be able to describe the condition, emphysema.	Diagram of respiratory system from National Tuberculosis and Respiratory Disease Association. High school physiology text would be useful. "I'm Joe's Lung," <u>Reader's Digest</u> Reprint, \$2.00/50. a) Teacher's Resource Guide for "Breathing-- what you need to know," National T.B. Respiratory Disease Association. b) Pyramid Films Source: Tuberculosis & Respiratory Disease Association, American Heart Association, American Red Cross

STUDENT WORKSHEET

Pulse and Respiration

A. Students work in pairs

1. While seated quietly have one student count and record the pulse of the other. At the same time the student being tested will count and record his own respiration rate.
2. They will then switch places and the second student will have his pulse and respiration rate recorded.

Use the following chart:

	Pulse	Respiration
Student 1		

	Pulse	Respiration
Student 2		

- #### B. Before having pulse and respiration rate recorded again each student will exercise for one minute.* (Students with asthma or other breathing problems should not take part in this exercise.)

Use the following chart:

	Pulse	Respiration
Student 1		

	Pulse	Respiration
Student 2		

*Teacher can suggest exercises, e.g., deep knee bends, touching toes, etc.

Answer the following questions:

1. What was the result of exercise on the pulse and respiration rate?
2. Why did the breathing rate change?
3. Why did the pulse rate change?
4. What effect does the change in pulse rate have on the heart?
5. Why would it be important to increase exercise time gradually, especially when not used to strenuous exercise?

TEACHER CONTENT

RESPIRATORY SYSTEM	ESSENTIAL KNOWLEDGE	RELATED KNOWLEDGE
Nostrils or Mouth Nasal Cavity	Air enters Air filtered while passing through	Particles in air Air humidified and brought closer to body temperature.
Pharynx	1. Two passages at back a) Food b) Air 2. Epiglottis valve	Protection of air passage from food particles.
Larynx	Boxlike structure contains vocal cords at upper end of trachea.	Air passing out of lungs over vocal cords causes them to vibrate--produces sounds, basis for speech and singing.
Trachea Bronchi	Tube at lower end divides into bronchi; one leads to each lung.	
Lung	1. Spongy organs 2. Interior divided into many small chambers increasing the moist surface areas.	Transfer of gases from blood stream.
Diaphragm	Sheet of muscle that extends across back cavity. a) Dome-shaped when relaxed b) Flattens when contracted	The chest wall and diaphragm act as a large pump in moving air in and out of lungs. The lungs themselves neither draw air in nor push it out.
Chest wall	Composed of ribs, their muscles and skin.	
Respiratory Center	Located in the stem portion of the brain, the medulla. Nerve fibers extend down into the spinal cord from this center, which continues through the phrenic nerve to the diaphragm. (If cut off from its nerve supply the diaphragm will not continue to work.)	The center is controlled by variations in chemistry to the blood. An increase in the CO ₂ in the blood stimulates the respiratory center which in turns sends impulses down the phrenic nerves to the diaphragm. (Stimulates breathing mechanism.)

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Inhalation Therapy Aide or Technician	Performs emergency tasks and those selected by the doctor, such as: Artificial respiration. a) Mouth to Mouth resuscitation. b) Other methods. Administers O₂ using O₂ tank and mask. Closed cardiac massage. Assists with postural drainage exercises.	See First Aid Manual a) Mouth to mouth resuscitation. b) Other methods. Placement of face mask and monitoring of O₂ tank. Intermittent compression of the heart by pressure applied over the sternum. Special positioning of patient dependent upon area to be drained, (e.g., upside down position).	Effects of artificial respiration CO₂ - O₂ balance. Why O₂ is administered. Relationship of cardiac problems to breathing difficulties. Use of forced gravity to help move secretions to trachea from which patient can cough them up.

CARDIOPULMONARY RESUSCITATION

I. DIRECTIONS TO THE STUDENT

View the film "Breath of Life" or one available to your agency through the local chapter of the American Heart Association. Take notes so that you will be able to perform the procedure in the skill laboratory. Complete the post-test, both written and performance, when you have finished this program.

II. GENERAL PERFORMANCE OBJECTIVE

Following this lesson you will be able to recognize the symptoms of cardiac arrest, and be able to start the emergency cardiopulmonary resuscitation technique.

III. SPECIFIC PERFORMANCE OBJECTIVE

When you have finished you will be able to:

1. Recognize and describe the signs and symptoms of cardiac standstill (cardiac arrest).
2. Provide a patent airway for the patient.
3. Initiate mouth-to-mouth resuscitation.
4. Initiate closed-chest massage.

(Steps 3 and 4 will be done only if your agency permits you to initiate these procedures. However, everyone should know how to do them in order to assist the nurse or doctor as needed throughout the procedure.

IV. VOCABULARY

Some of the words used in this lesson may be new or unfamiliar to you. These have been listed below with their meanings. You should go over this list several times and when you see the word used in the lesson, refer to this section unless you are sure of its meaning.

cardiac board-----flat board usually kept on cardiac arrest cart. It is placed under the patient's back, if he is in bed, to provide a firm surface for giving the external heart massage.

CPR-----abbreviation for cardiopulmonary resuscitation.

pupil-----contractile opening in the center of the iris (the colored portion of the eye) which permits light transmission.

contracted pupils-----pupils become smaller when exposed to light.

dilated pupils-----pupils enlarge in darkness (both pupils should be equal in size).

resuscitation-----act of bringing back to full consciousness (life).

sternum (breastbone)-----flat, narrow bone in the midline of the thorax between the ribs.

trachea-----windpipe.

V. INTRODUCTION

The sudden cessation (stopping) of heart action and respiratory action creates an "emergency situation" in which you might become involved whether you are at work, at school, at play, or at home. If you know the signs of cardiac standstill and respiratory collapse, you can give immediate attention. When you know the required procedures and have practiced them until you become skillful, you will be able to manage an emergency with calm, decisive action. Your skill will give confidence to others around you and ultimately you may save a life.

The procedure you are about to learn is one of the most rewarding activities you can experience. Learn well; the life you save may be a loved one.

Cardiac arrest, or cardiac standstill, results when the heart and lungs suddenly cease functioning. Unless you can reestablish breathing and circulation almost immediately, vital brain cells will die because of lack of oxygen, which you remember is essential for the cells to live. Brain tissue does not regenerate; if any of the cells die, that particular portion of the brain will cease to function. Of course, if only a few cells are destroyed, the damage will be minimal. If a large area is destroyed, however, the patient may be left with very limited capabilities. Thus the speed with which you act is vitally important for the survival of the patient in a productive life.

If the circulation of oxygenated blood is started within four minutes, there will be relatively little brain damage. A period of more than six minutes without oxygen flowing to the brain cells will cause irreversible destruction of the tissues.

Cardiopulmonary resuscitation is utilized to provide oxygen to the cells of the body. This is done by means of mouth-to-mouth resuscitation and it is to be used to circulate the oxygenated blood by means of external cardiac massage (compression).

In the event that you find a patient with no respirations, note the time (because time is of the essence), check to see if there is a pulse, and look for dilation of the pupils (pupils react to light if there is an adequate supply of oxygen to the brain). If you observe danger signals--no respiration, no pulse, and dilated pupils--then you must immediately initiate the cardiac arrest call. This information should be obtained when you first start to work in a new agency.

Now view the film; be alert for the signs of cardiac arrest and the action that must be taken to restore the patient to an active life.

Item 1: Mouth to Mouth Resuscitation

Important Steps

Key Points

1. Note the time.
2. Remain with the patient.
3. Summon help.
4. Stand beside the patient's head and clear his airway.
5. Lift his head with your left hand.
6. Tilt patient's head backward to maximum extension with right hand. (Reverse hand positions in this and in steps 5 and 6 if you are left-handed.)

Search for signs of breathing. Feel for a pulse. Observe the pupils of the eye for dilation.

Place him in the dorsal recumbent position; remove the pillow from the bed.

Get help by pulling emergency call button in patient's room, calling nursing station through intercom system, shouting loudly, or using patient's telephone. Help will arrive soon with the emergency cart and supplies. Each agency has a special code for cardiac arrest which is used on the loudspeaker system: i.e., Dr. Heart wanted in Room 609, etc.

Inspect his mouth for any obstruction. Remove foreign bodies with your index finger if they can be seen and easily dislodged.

NOTE: If the patient is on the floor, you would kneel beside his head.

When patient is relaxed, his tongue will fall back into the throat. Place your hand under his neck and lift upward.

Place your left hand on his forehead and push downward. This will force the tongue forward from the throat and open the airway.

This action alone may make the patient breathe. If he does not breathe spontaneously (on his own), you will have to give mouth-to-mouth resuscitation.

7. Pinch patient's nose shut (with your right thumb and index finger).
8. Open your mouth wide.
9. Take a deep breath.
10. Place your mouth over patient's mouth.

This will prevent the escape of air through his nose when you breathe into his mouth.

For an adult patient:

Make a good seal - fit your mouth tightly to his skin on the cheek. Your right cheek will rest tightly against his nose, giving a more secure nose seal.

For an infant or small child:

Place your mouth over his nose and mouth. Breathe in smaller amounts of air.

11. Blow your breath into his lungs through his mouth.
12. Remove your mouth and allow him to exhale.
13. Repeat breathing cycle at 12 times per minute for an adult. For a child, increase the rate to about 20 times per minute.

Blow enough air into his mouth to inflate his lungs about twice the size produced by the usual inspiration.

This will give you some momentary rest.

You can tell when the lungs are inflating because:

- a. You can see the chest rise and fall
- b. You can feel the lungs expand
- c. You can hear the air escaping during expiration (breathing out).

If the patient does not start breathing after five lung inflations and if the pulse is absent and the pupils of the eye are dilated, then you must begin external cardiac compression or massage. You will be able to do this better if there is someone to assist you. Usually someone will have responded to your emergency call by this time.

Item 2: Cardiac Compression

1. Maintain your breathing cycle with the patient; stand beside his head, facing toward his body.

The second worker will place a cardiac board under the patient to provide solid support during compression cycle. The cardiac

2. The second person positions himself at the patient's left side, chest level.
3. Place heel of your right hand over the lower half of patient's sternum (breast bone).
4. Place your left hand on top of your right hand. (Reverse hand positions if you are left-handed.)
5. Exert a sharp downward force on the patient's chest.
6. Repeat the compression action (pressing down on the sternum) with an alternating relaxing stroke.
7. Continue procedure until patient revives or the physician pronounces the patient dead (or follow your agency practice).

board is usually carried on the cardiac arrest cart. Your agency may have some other provision for providing a firm surface for the patient when he is receiving the external cardiac massage. If a board is not available, place the patient in supine position on the floor.

He will be standing beside worker number one, but will be out of his way.

Do not include the distal end of the sternum (xiphoid process). Proper positioning of hands will prevent internal injuries and/or broken ribs.

Keep your elbows straight.

The application of this force creates pressure which "pumps" blood into the arterial system. Since you are using the whole upper portion of your body, you will be able to exert 60 to 100 pounds of pressure on the patient's sternum, and the weight should depress the sternum 1-1/2 to 2 inches. This action will gently massage the heart muscle which is located under the sternum and slightly to the left. (Permit the chest to rebound.)

Maintain a steady rate at about 60 times per minute (almost the normal adult heart rate).

You will compress the chest five times between each lung inflation. If one person is doing both procedures, the ratio is 2 ventilations to 15 compressions.

This procedure is very tiring. Someone else may take over the compression by placing his hand over yours (in the same position); he gets into the cycle of depressing the chest; you can then withdraw your hands carefully while he continues the compression.

8. Record on patient's chart.

Note the time at which the procedure was initiated, how long it was carried out, and the end result. Chart example:

3:10 p.m. Patient found not breathing. No pulse, pupils dilated. Cardiac arrest procedure initiated. J. Jones, S.N.

3:12 p.m. Dr. White and the Inhalation Therapy personnel responded. Cardiopulmonary resuscitation continued.

3:20 p.m. Began breathing on his own; pulse 60, pupils reacting to light, color pinkening up. J. Jones, S.N.

NOTE: Both procedures can be done by one person, although it is difficult and very tiring.

VI. ADDITIONAL INFORMATION

The American Heart Association has published a prepared statement which makes the procedure easy to remember:

Five Rules of Five

1. Start immediately--always in less than 5 minutes. The brain can survive without damage 4 to 6 minutes after breathing stops, only 2 to 4 minutes after circulation stops.
2. Open airway and inflate the lungs every 5 seconds.
3. After 5 good breaths if breathing does not resume, pulse is absent, and pupils dilated, begin external cardiac compression.
4. For effective Heart-Lung Resuscitation, inflate the lungs between each 5 compressions.
5. NEVER interrupt Heart-Lung Resuscitation for more than 5 seconds at any time.

If you wish further information on the subject, your instructor will provide additional reading materials. The American Heart Association has published pamphlets which may be of interest. Your instructor probably will have samples available for you.



Place victim on back. Clear mouth and throat.



Tilt head fully back. Raise the chin. Maintain this position throughout.



Take a deep breath and blow. Remove mouth between inflations. Listen for air return. Repeat every 3-4 sec.

B.



Insert airway over tongue until mouthguard covers lips.



When two attendants are present, the first ventilates the lungs with two airway breaths and the second compresses the chest 15 times alternately. They may reverse positions to relieve fatigue. A third assistant, if present, elevates the victim's legs to increase the blood supply to the vital organs.



If no response after 1/2-1 minute, thump breast bone three times.

Inflate chest with two airway breaths. Compress chest over breast bone 15 times, once per second. Alternate two airway breaths with 15 chest compressions.



Lower third of sternum.

Fig. 1.—FIRST-AID: A. Artificial respiration by the chance rescuer. B. Artificial respiration and artificial circulation by the trained rescuer. C. Emergency resuscitation when two or more attendants are present.

Cardiopulmonary Resuscitation

POST-TEST

To be completed before a demonstration for your instructor.

1. List the 3 steps to determine if life is threatened or "sudden death" is imminent:

- (a) _____
- (b) _____
- (c) _____

MULTIPLE CHOICE: Circle the letter of the correct answer.

2. How long a period of time can pass without oxygen before irreversible changes occur at the cellular levels of the human brain or brain damage occurs?

- (a) One to two minutes
- (b) Four to six minutes
- (c) Fifteen to twenty minutes

3. Lack of circulation causes the pupils of the eye to:

- (a) dilate
- (b) constrict

4. The first step in the management of any unconscious victim is to:

- (a) stop the hemorrhaging
- (b) provide warmth
- (c) establish an open airway
- (d) compress the chest for heart massage

5. To initiate artificial ventilation, the patient is placed in which of the following positions:

- (a) flat and prone
- (b) supine with chin on chest
- (c) supine with chin straight up and head lifted back
- (d) Sims' position with head tilted back

Post-Test, Cardiopulmonary Resuscitation, Cont'd.

6. In artificial resuscitation, an adult patient should receive how many breaths per minute?
 - (a) 26 times per minute
 - (b) 12 times per minute
 - (c) 8 times per minute
7. Artificial ventilation is continued until:
 - (a) spontaneous breathing occurs
 - (b) a pulse is present
 - (c) pupils constrict
8. External Cardiac massage refers to:
 - (a) circular motions over the heart
 - (b) squeezing the heart between the lower end of sternum and spine
 - (c) squeezing the heart between the upper end of sternum and spine
9. Pressure is applied by
 - (a) the heel of one hand
 - (b) the fingers of both hands
 - (c) the heels of both hands overlapping
10. For cardiac massage the patient should be:
 - (a) in prone position on solid surface
 - (b) in supine position on soft surface
 - (c) in supine position on solid surface
11. Enough pressure should be applied to push the sternum down:
 - (a) 6 inches
 - (b) 1/2 inch
 - (c) 1-1/2 to 2 inches
12. The minimum number of compressions per minute for adults is:
 - (a) 120 times per minute
 - (b) 60 times per minute
 - (c) 30 times per minute

Post-Test, Cardiopulmonary Resuscitation, Cont'd.

13. One person providing artificial ventilation and circulation should establish the following pattern:
 - (a) 15 compressions, then 2 ventilations
 - (b) 60 compressions, then 1 ventilation
 - (c) 15 ventilations, then 2 compressions
14. When two persons provide CPR, the ventilator should interpose ventilation between:
 - (a) every 3rd to 4th heart compression
 - (b) every 10th to 11th heart compression
 - (c) every 5th to 6th heart compression

Cardiopulmonary Resuscitation

PROGRAMMED LEARNING ANNOTATED ANSWER SHEET

1. Respirations stop;
no heartbeat;
pupils dilated. (p. 2)
2. b (p. 2)
3. a (p. 2)
4. c (p. 2)
5. c (p. 3)
6. b (p. 4)
7. a (p. 4)
8. b (p. 5)
9. c (p. 5)
10. c (p. 4)
11. c (p. 5)
12. b (p. 5)
13. a (p. 5)
14. c (p. 5)

Cardiopulmonary Resuscitation

PERFORMANCE TEST

In the practice lab, you will correctly perform one of the following:

Mouth-to-mouth resuscitation; or

Closed chest massage on the mannequin, Resusci-Annie.

This will take you some time to practice so that you will obtain the correct results. When you have practiced sufficiently so that you can carry out the procedure quickly and correctly, ask your instructor to check your performance.

Cardiopulmonary Resuscitation:

Date: _____

Prerequisite module(s) _____

[illegible]

* PASS FAIL

PERFORMANCE CHECKLIST

Cardiopulmonary Resuscitation:

Module: External Cardiac Massage _____

Date: _____

Student: _____

Instructor: _____

Institution: _____

Prerequisite module(s) _____

SATISFACTORY *

UNSATISFACTORY

NOT APPLICABLE

1	Assumed that artificial respiration procedures had been initiated.			
2	Maintained patient's respiration.			
3	If required, placed patient on cardiac board or a non-compressible surface such as the floor.			
4	Positioned self appropriately (patient's side was chest level).			
5	Placed heel of one hand over the lower half of patient's sternum.			
6	Placed remaining hand on top of first hand.			
	A. Made sure to keep elbows straight.			
	B. Did not permit fingers to contact the chest wall.			
7	Exerted a sharp downward force on patient's chest (depressed the sternum approximately 1 1/2 to 2 inches).			
8	Permitted chest wall to "rebound" to a normal position.			
9	Repeated the process approximately 60 times per minute.			
10	Continued the procedure until the patient revived or the physician terminated the activity.			
11	Recorded the activity on patient's chart.			
	<u>Verbal question</u>			
	In the event that one individual must perform both artificial respiration and external cardiac message, what is the rhythm of action?			
	<u>Response</u>			
	External cardiac message 15 times, break to cycles of artificial respiration, followed by 15 chest compressions. This procedure is repeated as required.			

* PASS _____ FAIL _____

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Inhalation Therapist (Certified)	Diagnostic a. Gas analysis using chemical equipment. b. Measures vital capacity using spirometer Bedsman CO₂ Analyzer. c. Measures vital signs, refer to Case II. d. Collects mucous specimen. Therapeutic a. Operates respirator. b. Operates humidifier. c. Intubation (inserting nasal tubes). d. Use of suction equipment. e. Administers medication. Various specialized instruments are employed. Follow doctor's orders.	Operation of varied highly specialized equipment.	CO ₂ - O ₂ relationship normal pulmonary functions.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Some of the students have been exposed to this occupation as part of their initial hospital experience. They should describe the role and the tasks of the Inhalation Therapist to the class, supplemented by the teacher. Demonstration by inhalation therapist of the various machines used. Hospital field trip should be arranged.	The student should be able to name five tasks performed by the inhalation therapist.	Teacher Content <u>Considering a Career in Inhalation Therapy?</u> Pamphlet available from American Association for Inhalation Therapy, 3554 Ninth Street, Riverside, California 92501.

The Inhalation Therapist: Life May Depend On Him

Inhalation therapists treat patients with respiratory problems. This may range from giving relief to patients with chronic asthma or emphysema to giving emergency care in cases of heart failure, stroke, drowning, and shock.

A rapidly evolving field, inhalation therapy requires specially trained personnel to master the use of sophisticated equipment needed in treating many respiratory problems. The inhalation therapist is one of the first medical specialists called in for emergency treatment of acute respiratory conditions arising from head injury or drug poisoning. Moreover, the short span of time during which a patient can safely cease to breathe emphasizes the highly responsible role the inhalation therapist must play. If a patient does not breathe for three to five minutes, there is little chance of recovery without brain damage, and if oxygen is cut for 9 minutes he will die.

Inhalation therapists follow doctor's orders in giving medication to the patient through aerosols or using mists to help control the patient's environment. When administering gases to patients, the inhalation therapist assumes complete control over the patient's environment, including moistures and temperature.

Inhalation therapists may also be called upon to instruct physicians and nurses on the use of specialized inhalation equipment, and show patients and their families the proper use of home equipment. Other duties include keeping records of the cost of materials and charges to patients. Therapists are responsible for routine maintenance of their equipment.

Training. Most therapists who entered the job in the mid-1960's and before qualified through on-the-job training. Such training generally lasts about 1 year and is conducted by the chief therapist and medical supervisor. High school graduation is normally the minimum requirement for entrance.

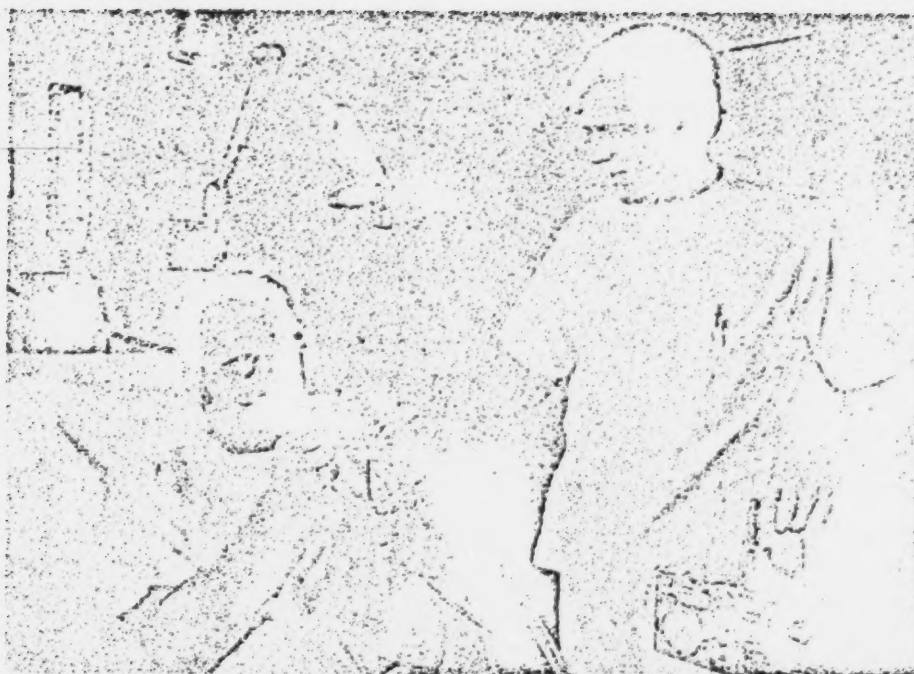
Despite the predominance of on-the-job training in the late 1960's, the trend today is toward formalized accredited training. In 1969, over 50 approve schools trained inhalation therapists. These schools were approved by the Board of Schools of Inhalation Therapy. Courses vary in length between 18 months and 4 years and include both theory and clinical work. A bachelor's degree is awarded for completion of the 4-year program and lesser degrees for shorter courses. Basic courses are human anatomy and physiology, chemistry, physics, microbiology, and mathematics. Technical courses offered deal with procedures, equipment, and tests.

Inhalation therapists who complete formal training and have one year of experience are eligible to be registered by the American Registry of Inhalation Therapists (ARIT). Applicants must pass oral and written examinations. In 1969, over 500

(continued)

occupational outlook quarterly

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therapists had been registered by the ARIT. An inhalation therapist who has been registered often can advance faster and obtain a higher position than others. An increasing number of employers recognize registration by ARIT as a mark of standard qualifications.

Personal characteristics considered desirable for inhalation therapists include ability to work with patients and understand their physical and psychological needs; mechanical ability; and a sense of responsibility.

An estimated 10,000 inhalation therapists were employed in 1968. Most were employed in anesthesiology or pulmonary medicine departments of hospitals. Others were employed by oxygen equipment rental companies, ambulance services, nursing homes, and universities. Most therapists are men; however, an increasing number of women are entering the field.

This change was caused in part by elimination of the need to handle heavy cylinders of gas.

Inhalation therapists can advance to positions as assistant chief or chief therapist.

Besides employment in hospitals, inhalation therapists may find work in research or in college teaching.

Employment Outlook. Employment opportunities for inhalation therapists are expected to be excellent through the 1970's. Those therapists who complete formal training will be in demand to fill high-level supervisory positions. In the future, the use of inhalation therapists is expected to increase in relation to other health workers and to rise also from the increasing demand for health services in general. The expected rapid growth will also stem from realization that among benefits arising from employing specialists in inhalation therapy is releasing nurses and other personnel to perform

their primary duties.

In addition, many openings will arise because of the need to replace those who retire, die, or leave the labor force for other reasons, especially for marriage and family responsibilities.

Earnings. The average monthly starting salary of inhalation therapists working in hospitals in 1969 was about \$470, according to the *National Survey of Hospital and Medical School Salaries*, a study made by the University of Texas. Top salaries of inhalation therapists in hospitals ranged as high as \$780 a month.

The annual beginning salary for inhalation therapists employed by the Federal Government was between \$4,125 and \$5,212 in 1970, depending on general experience. Some therapists employed by the Federal Government in 1970 earned as much as \$9,881.

Inhalation therapists working in hospitals receive the same benefits as other hospital personnel: hospitalization, paid vacations, and sick leave. Some institutions may provide tuition assistance or free courses, pension programs, uniforms, and parking.

Information concerning employment may be obtained from local hospitals. Facts are also available from:

American Association for
Inhalation Therapy
4075 Main Street
Riverside, California 92501

Information concerning requirements and equivalents of formal education needed for registration may be obtained from:

American Registry of
Inhalation Therapists
709 South Tenth Street
LaCrosse, Wisconsin 54601

RESPIRATORY DISEASES

Role of Inhalation Therapist

Definition of Inhalation Therapy:

Inhalation Therapy is that therapy designed to normalize any pathophysiological alterations of gas exchange in the cardiopulmonary system. It aims at adequate oxygenation as well as proper elimination of carbon dioxide.

Such therapy is accomplished by means of the proper application of therapeutic gases, including oxygen, helium-oxygen, and carbon dioxide mixtures; the use of pressure breathing devices, resuscitators and respirators to promote artificial ventilation and respiration; the administration of aerosols to improve the airways of the pulmonary system by relieving bronchospasm, liquefying secretions, and combating infections; and the use of artificial airways to relieve obstruction.

Specific Tasks of The Inhalation Therapist*

The inhalation therapy technicians should be capable of complying with orders written by an attending physician regarding the following procedures:

1. Administration of gases by catheter, tents, hoods, etc.
2. The assembling and application to the patient of pressure devices, including those for IPPB (intermittent positive pressure breathing), expiratory pressure masks, respirators (Drinker and other types) and various resuscitators (Kreiselman, Emerson).
3. The instructions to the patient and assembly of equipment for aerosol therapy with respect to nebulizers, oxygen tanks and motor blowers.

In addition, the technician should be responsible for the maintenance, service, care and repair of the forementioned equipment. He should also be responsible for the maintenance of records on all patients receiving inhalation therapy.

COMMENT: It should be emphasized that the technician complies with and follows orders that are written by the physician. In other words, the technician would under no circumstances be in a position to decide on a mode of inhalation therapy.

*American Association of Inhalation Therapy, Chicago, Illinois.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Inhalation Therapist or Cardio-Pulmonary Technician	Takes EKG using specialized machine. Operates defibrillator, an electrical heart stimulator.	Placement of electrodes and monitoring of machine. Operation of apparatus.	Normal heart pattern. Dangers of fibrillation of heart. Cardiac problems that can occur as a result of chronic lung disease.
Physician Inhalation Therapist and Nurse	Education and instruction of patient for self help at home, e.g., special exercises.	Home care procedures.	Psychology of patient, home and social conditions.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion: Purpose of EKG test.	The student should be able to identify EKG machine and describe its function.	
Teacher: Summary of emphysema, its effect on the life of the individual, and his responsibility in maintaining his own health.		"What You Can Do About Your Breathing." T.B. Association.

CASE VI

TUBERCULOSIS

Guidelines

Transition from Emphysema Case to T. B. Case

Three other chronic respiratory diseases--bronchial asthma, chronic bronchitis, and lung cancer--should be discussed briefly from the following aspects:

1. The relationship of prolonged irritation by smog and cigarette smoking to the course of the disease.
2. The role of heredity in bronchial asthma.
3. The link between chronic bronchitis and emphysema.

Bacteria or viruses are not known at present to play a significant role in the etiology of these diseases, except for chronic bronchitis. But viruses and bacterial infections do account for a great variety of other pulmonary diseases, such as the common cold, pneumonia, and tuberculosis.

The following case of tuberculosis was selected for study because its etiology is bacterial and it is a reportable disease of great historical significance.

CASE VI

TUBERCULOSIS

Purpose

To illustrate the connections between facilities such as school, hospital, and health department by following a case study of a reportable disease.

Objectives

The student should be able to describe the functions of the personnel involved in the hypothetical case.

The student should be able to perform tasks specified within the framework of the case.

Procedure

Much of the background for this type of case has been covered in Case V. This unit should, therefore, be presented more briefly than the other cases, making it possible to allocate more time to Case VII.

CASE VI

TUBERCULOSIS

Health Problem:

Tuberculosis: High school student has positive reaction to the Mantoux test.

Facility: School Health Office

Profile

The Tuberculosis Skin Test

Mr. Martin, a tenth grade Homeroom teacher, made an announcement concerning some special forms. They were to be taken home and given to a parent. If the parent gave consent, the forms were to be signed and returned to school.

Roy Johnson, fifteen, along with his classmates, scanned the form. It was a notice that a medical team would be at the school on a certain date to give free Tuberculosis skin tests. Roy was tempted to throw the paper away, but he was curious about the test. He could not remember whether he had ever had one before. He decided to ask his mother when he reached home. His mother said that he had been tested when he was three years old.

All this talk about the skin test made Roy's mother realize how time had flown by. She could not believe that twelve years had passed since Roy was last examined for T.B., and she was eager to take advantage of the opportunity the school was providing. She signed the slip, and Roy returned it to school. He then promptly forgot about it.

During third period English class on November 17, a notice came for Roy to report to the health office. It was not until he joined the line of waiting students in the health office that he remembered the T.B. skin test. There were so many ahead of him, he never did get back to his third period class.

He didn't mind returning a day later to have his skin test "read," for it meant missing his turn at the blackboard. He had no idea how meaningful this day was to be for him, in terms of his future health.

The school nurse told Roy his skin test was positive and that further tests were now necessary.

The diagnostic tests required as follow up from the positive Mantoux test can be performed at a Health Department Clinic or at a hospital. Roy's mother decided to have him go to the hospital.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
School Nurse	Mantoux Test, intradermal injection with serum. Reads skin test reaction 24-48 hours later. Measures positive reaction and records in millimeters as the largest diameter of the induration. Recommends further diagnostic tests to confirm presence of TB if Mantoux Test is positive. Reports positive findings to health department.	Mantoux Test is specific for TB. <u>POSITIVE REACTION:</u> Injection site shows an area of redness and a central area of induration. The area of induration (not erythema) indicates how positive the test is. <u>NEGATIVE REACTION:</u> No visible reaction or only slight redness with no induration. A positive Mantoux is especially significant if the individual tested is a teenager. Further diagnostic tests are mandatory.	Either serum is used: a. OT (Old Tuberculin) prepared from dead tubercle bacilli. b. PPD (Purified Protein Derivative) highly purified product containing protein from tubercle bacilli in a dry stable form (tablets)--made up in desired dilution immediately before use. <u>POSITIVE REACTION:</u> indicates that individual has been infected with tubercle bacillus, but does not mean he has active tuberculosis; further diagnostic tests needed to confirm disease. <u>NEGATIVE REACTION:</u> Nearly always indicates that person has not been infected by tubercle bacillus.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor Discussion: Significance of the Mantoux test. TB sufferer was popular target for quacks (refer to unit on Quackery). Supplementary reading: Chapter on fraud of T.B. sufferer in <u>Medical Messiahs</u>. Suggested supplementary discussion or homework ideas. Instructor:	The student should be able to name the disease related to the Mantoux test and its importance as a diagnostic tool.	James Harvey Young, <u>Medical Messiahs</u>.
Arrange for students to go to Health Department clinic in their district for the T.B. skin test (parents' permission is needed).	The student should be able to list sources for T.B. skin testing.	The Mantoux test is given free on request by the L.A. County Department of Health, for district residents. Clinic hours vary in different health districts. Arrangements must be made in advance.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Admitting Clerk	See Case II		
X-Ray Technician	Chest X-ray (see Case II).		
Laboratory Technician	1. Instruction of patient in raising sputum for examination. a. collects sputum sample b. Cultures organisms c. Writes laboratory report confirming presence or absence of organisms on specified forms.	1. Techniques for helping patient raise sputum. 2. Special handling of contaminated material.	Only sputum from deep in the chest is to be collected. Inadequate instruction will have patient expectorate saliva rather than sputum.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor discussion: 1. Methods of transmission of tubercle bacillus. 2. Refer to culturing of organisms Cases III and IV. 3. Significance of presence or absence of tubercle bacillus in sputum.	The student should be able to list four sources and routes of infection by the tubercle bacillus.	

CASE VI

TUBERCULOSIS

Supplementary Activities

Historical Significance

- a. Relationships of the magnitude of T.B. in the population to the economic development of the country.
- b. Relationship of communicability to housing.
- c. Koch's use of the T.B. bacillus to demonstrate that a disease could be bacterial in origin.
- d. T.B. was so widespread and important a disease that many authors used it as their central theme.

e.g., Alexander Duma's heroine in "The Lady of the Camellias" was a consumptive.

Verdi based his opera, "La Traviata," on Dumas's story.

Thomas Mann's novel, Magic Mountain, takes place in a T.B. sanitarium.

RESPIRATORY DISEASES

Tuberculosis*

I. Historical Background

1. Tuberculosis historically has been the foremost infectious disease as a cause of chronic disability and death in most parts of the world.
2. Tuberculosis takes its greatest toll among the under-privileged classes of the population. It is to some degree a barometer of social welfare; the downward trend in many countries has followed improvements in housing, nutrition, working conditions, and the general standard of living of the masses.
3. Villemin, a French investigator, showed in 1865 that the disease could be experimentally transmitted from animal to animal.
4. Koch, 1882, discovered the tubercle bacillus and clearly demonstrated its etiologic role. (Koch's Postulates)

II. Etiologic Agent

1. Mycobacterium Tuberculosis - A non-spore bearing, acid fast, rod shaped microorganism which can be cultivated on artificial media.
2. It is pathogenic for most laboratory animals. There are several types, of which only the human and bovine types cause disease in man.
3. Tubercle bacilli are destroyed by exposure to direct sunlight, by heat, and by such disinfectants as phenol or tricresol solution. They are more resistant to chemical agents, especially acids and alkalies, and to antibacterial agents such as penicillin than are most pathogenic microorganisms. They can remain viable for long periods in dried sputum.

III. Sources and Routes of Infection

1. The principal source of infection is bacilli from the lungs and bronchi of persons with active pulmonary tuberculosis.
2. They are contained in the respiratory secretions that are coughed up and expectorated or expelled in sneezing, talking or other respiratory effort.

*Sartwell, Philip, ed., Preventive Medicine and Public Health, ninth ed. New York: Meredith Publishing, 1965.

3. Organisms liberated into the environment may be directly inhaled in the form of droplets, or they may remain suspended, in droplets, until inhaled. They may also adhere to dust particles which are inhaled when stirred up.
4. Other mechanisms of infection include contamination of hands with bacilli-laden respiratory secretions and indirect transfer to mouth, and contamination of food or eating utensils.
5. Drinking unpasteurized milk from tuberculous cows may initiate infection of the alimentary tract.
6. The principal portal of entry is the respiratory tract.

IV. DIAGNOSIS

Symptoms are variable and likely to appear late in the disease. They include fatigue, weight loss, fever and night sweats, cough, expectoration, chest pain, hoarseness, and occasionally hemoptysis (spitting blood).

Accurate diagnosis rests on:

1. Tuberculin testing
2. X-Ray findings
3. Bacteriologic study

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Radiologist	Reads X-ray for lung changes. Writes report of the condition and stage of the disease.	Ability to distinguish stages of the disease.	
M.D. (chest physical)	1. Reviews results of diagnostic tests. Makes verification of disease. 2. Prescribes treatment. 3. Orders isolation of patient. 4. Reports case finding to Health Department.	Presence of T.B. organism and X-Ray showing lung changes are positive proof of disease in individual. Unless specific resistance is demonstrated by cultural methods, initial drug therapy is the combination of at least two of the three common antimicrobials: streptomycin (SM), isoniazid (INH) and paraaminosalicylic acid (PAS). Patient isolated until sputum is negative to tuberculin bacilli. T.B. is one of the reportable diseases and the Health Department must be notified.	Isolation Techniques, e.g., use of gloves, masks, etc.
Health Department Public Health Nurse	1. Visits home of patient to verify continuation of treatment. 2. Arranges for examination of contact and family members.	T.B. is a contagious disease.	The Health Department requires follow-up information on condition and treatment of patient. Possibility for as long as 2 years; it varies with condition of patient.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor: Review characteristic picture of T.B. lung including possibilities of reinfection. Show class radiographs of normal and diseased lungs; if possible show an actual lung section.	The student should be able to describe why T.B. is considered a chronic disease.	Introduction to Respiratory Diseases. Radiographs and possible lung section may be obtained from: Respiratory Disease Association and American Cancer Society.
Instructor: Discuss asepsis and the problems of handling a communicable disease. Instructor will demonstrate and students will practice two isolation techniques. - Putting on and removing an isolation gown. - Putting on and removing a face mask.	The student should be able to describe what "isolation" means and its importance in relation to a communicable disease. The student should be able to demonstrate the specified isolation techniques.	A Manual for the Control of Communicable Diseases in California. California State Department of Public Health, 1966. UCLA AHPP Nursing Units Isolation Technique.
Students asked to interview a Public Health Nurse concerning her duties regarding follow-up of a T.B. patient under treatment, since it is a reportable disease.	Student should be able to discuss the role of the PHN involved with a reportable disease.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse	1. Administers drugs ordered for patient. 2. Watches patient for any reaction to drugs. 3. Reports to doctor.	Familiarity with the various drugs and possible reactions that might occur.	All drugs are potentially harmful as well as helpful.
Physician (and nurse)	1. Instructs patient as to the nature of the disease. 2. Follows up patient responses carefully. 3. Release from hospital for home care.	Pulmonary T.B. is a chronic bacterial disease, the course of which is subject to much variation depending on the individual. Determines that disease is no longer communicable and patient is responding well to treatment.	Bacille Calmette Guerin vaccine (BCG) is used primarily in countries other than the U.S.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor: Give examples of various side effects from use of drugs.		
Instructor: Summarize T.B. as a chronic communicable disease.	The student should be able to describe the nature of T.B.	"BCG"

Putting on an Isolation Gown

Important Steps

1. Remove rings and wristwatch.



2. Wash your hands.

3. Select a clean gown.



4. Put your arms through gown sleeves.

5. Work inside sleeves of gown.



Key Points

Rings and wristwatch may harbor microorganisms which could be carried to others outside the isolation unit. If your watch is needed for the TPR, remove it and place it on a clean paper towel at the patient's bedside. (Take paper towel from dispenser in patient's room.)

Refer to unit on handwashing. Use a liquid anti-microbial soap.

Hold gown at neck opening and let the gown unfold downward (gowns are usually folded in thirds for neat storage). The open part at the back should face you. The gown will be full length so it will cover your entire uniform to prevent contamination of your uniform while working in the isolation unit.

NOTE: The National Communicable Disease Center in Atlanta, Georgia, recommends the use of the "individual gown technique." That is, use the gown only once and then discard.

Touch only the INSIDE of the gown. Holding the inside of the gown, slip one arm at a time into the sleeve. Pull the gown on as far as possible.

Work carefully to avoid contaminating your hands. Grab the opposite sleeve with your gown-covered hand (see opposite diagram); gently pull sleeve up on your arm and shoulder. When this procedure is completed, go on with the other sleeve in the same manner, always working from the inside of the gown.

6. Adjust gown on shoulders.

Place your fingers inside the neck-band (at the back), and adjust the gown so that it fits comfortably on your shoulders. Remember to work with the INSIDE of the gown: keep your hands clean. If you touch the outside of the gown, or your hair, you must repeat the HANDWASHING PROCEDURE.

7. Tie neck tapes (ties).

Handle the ties carefully. Keep your hands clean. Do not touch your hair.

8. Draw edges of gown together.

The open part of your gown is at your back. Bring the right side of gown over the left side of the gown. Adjust the gown so that it fits snugly (if you are left-handed you would proceed from the left; putting the right side over the left, then adjust snugly).



9. Tie waist belt.

Grasp waist belt, at the far (distal) ends, draw together at your back, and tie snugly.



You are now ready to give nursing care unless you need a mask or rubber gloves. If they are required, proceed in the manner prescribed later in the lesson. You are now ready to leave an isolation room--follow this procedure.

Removing an Isolation Gown

Important Steps

1. Untie waist belt.

Key Points

Pull sleeves up above wrists.

2. Wash your hands.

3. Untie neck ties.

Take care not to contaminate your hands by touching your hair or the OUTSIDE of the gown. Remember, it is contaminated. If you do, you must REWASH your hands.

4. Remove first sleeve of gown.

Place forefinger UNDER CUFF of sleeve and pull sleeve down over hand, without touching the outside of the gown.

5. Remove other sleeve.

With hand inside first sleeve, i.e., working with your gown-covered hand, draw second sleeve down over your hand.

5. Slip out of gown.

Discard it carefully in the soiled linen hamper in the patient's room. Remember, the National Communicable Disease Center recommends one-time gown usage.

7. Wash your hands.

Wash according to procedure; dry thoroughly. Turn off faucets with towel and discard towel in the designated place. AVOID TOUCHING anything in the room as you leave. (If you used your wristwatch during the procedure, retrieve it at this time and put it on. Discard paper towel on which it was resting. Handle towel from the top side only. Remember--the underside is contaminated.)

8. Record nursing tasks accomplished.

Record appropriate information on patient's chart. Report any unusual signs or symptoms to your team leader. Charting example:

Placed in Isolation per order.
Explained procedure. Appears to take news very well, is cooperative.
B. Bee, SN

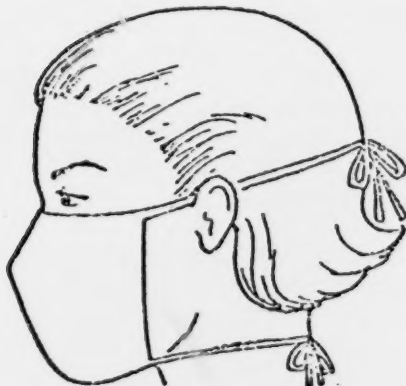
For some infectious cases you may be required to wear a mask (see sample chart, page 31). If so, follow the next procedure. You will put the mask on before washing your hands and putting on a gown, if it is used. Masks are usually worn in caring for patients who have an airborne disease, draining skin lesions, or who are on Reverse Isolation Technique.

Putting on a Face Mask

Important Steps

1. Take mask from container.

2. Put on mask.



3. Remove mask.

4. Change mask.

5. Rewash your hands before putting on another mask.

Key Points

Masks may be made of cloth or one of a variety of disposable materials. Handle the mask as little as possible because it will be coming in contact with your face and you will be breathing through it.

NOTE: The National Communicable Disease Center recommends the use of high-efficiency disposable masks.

Unfold mask and place it over your NOSE and MOUTH. Tie the mask with top strings at back of head; be sure the strings pass over your ears. (If you wear glasses, the mask should fit snugly over your nose and under the bottom edge of your glasses. This will prevent your glasses from steaming.) Tie lower strings of mask at back of your head at the neckline. Be sure to fasten ties securely; if not tied securely, they may work themselves loose during movement.

Remove mask by untying lower strings first, then upper strings. Take care not to let strings or mask drop on your gown. Discard mask in appropriate container. Proceed to untie waistband of gown and follow above gown procedure.

NOTE: A mask should never be reused. Therefore, do not slide the mask off your nose and mouth down around your neck. Always discard your mask when finished with the procedure. Start with clean mask each time.

Your mask will become moist as you breathe through it over a period of time. Change your mask whenever it becomes moist. Germs can grow in a wet environment.

RESPIRATORY DISEASES

Bibliography

Gordon, Mitchell, Sick Cities. New York: MacMillan, 1963.

Urban problems, all clearly presented, with many dramatic examples punctuating the account.

Herber, Lewis, Crisis in Our Cities. Englewood Cliffs, New Jersey: Prentice-Hall, 1965.

Documents environmental hazards present in cities all over the world. Clear correlation between public health and pollution problems.

Environmental Quality Magazine, 1970 primer edition, 63555 Topanga Canyon Boulevard, Woodland Hills, California.

Well written articles on vital issues. Recommend having copies available to the class.

Roueché, Berton, Eleven Blue Men. New York: Berkeley, 1953.

Shafer, Kathleen Newton et al., Medical-Surgical Nursing, 4th ed. Saint Louis: C. V. Mosby, 1967.

Stead, William W., Fundamentals of Tuberculosis Today, 2nd ed. Milwaukee: Marquette University Press, 1969.

Succinct review of tuberculosis, including treatment and community health aspects.

National Tuberculosis and Respiratory Disease Association.

Source of excellent materials for teacher and student, including charts, films, diagrams, and booklets on specific respiratory diseases. References particularly useful are as follows:

1. Teachers Resource guide for "Breathing . . . What you Need to Know."
2. "Introduction to Respiratory Diseases."
3. Air Pollution Primer."
4. "What You Can Do About Your Breathing."

Wylie, Philip, "Who Killed Mankind," two part series: Today's Health, October, November, 1970.

CASE VII

CHILDBIRTH

Purpose

To introduce the students to the medical specialities and allied health personnel involved in maternal and child care.

To discuss the components and stress the importance of good maternal and child care.

CASE VII

CHILDBIRTH

Objectives

1. The student should be able to name the health occupations involved in the case.
2. The student should be able to name the major tasks performed by each health professional as discussed in the class.
3. The student should be able to identify the equipment and instruments required for task performance as specified in the case.
4. The student should be able to perform the specified tasks.
5. The student should be able to name community facilities and special federal projects (Maternal and Infant Care Project) which provide maternal and child health services.

CASE VII

CHILDBIRTH

Procedure

Because of the nature of the subject matter, this case has three separate parts: pregnancy, labor, and postnatal care. It is advisable, therefore, to allow slightly more time for this unit than for the other cases in this module.

The unit includes a number of suggested field trips and guest speakers to supplement the classwork.

HEALTH PROBLEM

Maternal Care - prenatal care, labor and delivery, postnatal care
Child Health - (from the neonatal stage)

FACILITIES

Private Medical Doctor

County Health Facility, including Youth Clinic

Multipurpose Facility or Neighborhood Health Center

Planned Parenthood

Outpatient Clinic

Hospital

Well Baby Care

Outpatient Clinic

Private Medical Doctor

Multipurpose Facility

County Medical Clinic

PROFILE

Mr. and Mrs. Sommers were married five years ago. Early this year they decided that they would like to have a baby. Mrs. Sommers had her last menstrual period six weeks ago. Her usual cycle has been 27 to 30 days. She finds herself feeling quite tired and has had days of feeling nauseated. She decides to see a physician and find whether she is pregnant.

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Receptionist	Greets and registers patient, has patient fill out health history form. Makes appointments.	Communication skills Familiarity with appropriate forms.	
Clerk (Business Office Clerk) Intake Clerk-- (Health Dept. - works with and is trained by Public Health Social Worker)	Maintains file Takes social and medical history of patient, using Intake Form.	Filing: Digital and Alphabetical Communication skills Terminology Eligibility Requirements	
Nurse's Aide	Weighs patient on scale and records weight on appropriate form.	Use of scale.	

PRENATAL CARE

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
See previous Cases.		
Students will perform terminal digit and alphabetical filing.		Allied Health Professions Project. Module - "Filing" by Minna Gosman, University of California, Division of Vocational Education.
Students will review use of scale to weigh a patient.	Should be able to weigh a patient and accurately record the weight on the appropriate form.	

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse Public Health Nurse	Takes blood pressure and records on Prenatal Record.	Use of sphygmomanometer to read and record blood pressure.	Physiology of human reproduction.
			Menstrual cycle, hormonal regulation.
			Physiology and anatomy of the female system and other systems as they relate to the pregnant condition.
			Function of placenta. Effect of drugs on nutrition, infection.
	Checks urine sample for sugar and albumin using Ketostix. Records results.	Use of Ketostix. Read and record result.	Fetal development.
	Counsels patient with regard to care.	Patient care during pregnancy: diet, exercise, symptoms which may occur, general care; medication.	Genetics - Sex determination.
	Schedules prenatal appointments.	Schedules for prenatal visits.	

PRENATAL CARE

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Students will identify the equipment used in taking blood pressure. Students will demonstrate the steps involved in taking blood pressure. Discussion of blood pressure and importance of monitoring blood pressure in the pregnant female. Toxemia--definition and discussion. Rubella--discussion.	Should be able to state why the blood pressure of the pregnant female is monitored. Should be able to state the range of normal blood pressure and pressure changes observed during pregnancy. Should be able to state what high blood pressure in the pregnant female may indicate.	"A Second Look at the German Measles Vaccine," <u>Today's Health</u>, March, 1971.
"Drugs during Pregnancy." Students will test urine samples for albumin and record result. Discussion--significance of testing for albumin in the urine.	Should be able to state the purpose of testing the urine for albumin. Should be able to test a urine sample for albumin and record result.	"The Medicine Show," <u>Consumers Union</u>, 1970.

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Doctor	Verification of pregnancy by pelvic examination.	Performance of pelvic examination. Signs and symptoms of pregnancy.	Field of Obstetrics and Gynecology.
Laboratory Technician	Verification of pregnancy by laboratory analysis of urine specimen, using Gravindex Test or HCG Test.	Performance of laboratory tests: - HCG Test - Gravindex Test - Test involving live animal Reading of tests. Recording of test results on proper form.	Gravindex Test is most commonly used; it is the quickest and easiest test to perform. Theory behind Gravindex Test: Human Chorionic Gonadotropin is secreted by the placenta of a pregnant female.

PRENATAL CARE

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion: Purpose of Pelvic Examination.	Should be able to state that pregnancy can often be verified by a pelvic examination performed by a physician.	
Demonstration: Urine Tests to determine pregnant state. Discussion: Theory of Gravindex Test Hormonal Regulation of Menstrual Cycle. Supplementary: Urinary System - Function and Structure.	Should be able to state that pregnancy can be verified by laboratory analysis of a urine specimen, based on the presence of human chorionic gonadotropin (HCG), in the pregnant woman.	<u>Ortho Diagnostus</u> , Raritan, New Jersey.

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nutritionist Nutrition Aide	Counsels patient on dietary practices during pregnancy. Takes Dietary History. Evaluates the patient's diet.	Approved fundamental dietary practices for the pregnant woman.	Diets for special problem.
Social Worker Social Worker Aide	Counsels on problems relating to pregnancy.		
Health Educator Health Educator Aide	Aids in planning prenatal educational programs.		
Nurse Public Health Nurse Health Educator Health Educator Aide	Gives prenatal educational programs.	Knowledge regarding prenatal care and care of the newborn communication skills. Classes are given at the health department or by the American Red Cross.	

PRENATAL CARE

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Discussion: Dietary practices during pregnancy. Discussion: Research studies relating diet of female teenager to outcome of pregnancy. Speaker: Maternal and Infant Care Project Nutritionist.	Should be able to state the function of a nutritionist and an aide. Should be able to list the basic components of a recommended diet for the nonpregnant state and compare it to a recommended diet for the pregnant state.	"Nutrition during Pregnancy and Lactation," p. 5-11, 1967, from California State Department of Public Health.
Design a recommended meal plan for a maintenance diet for yourself. (Student will have to determine caloric requirements for maintenance.) Calorie chart and Basic Four Chart will be used for reference.	Should be able to state the function of the social worker and aide.	A calorie chart "What To Eat Before You Are Pregnant, After The Baby Comes," 1970. Available from the National Dairy Council.
Design a meal plan for reducing. Design a meal plan for the pregnant woman (select any trimester). Design a meal plan for the pregnant women of a minority, racial or ethnic group, using ethnic foods.	Should be able to state the role of the health educator and the aide and will be able to state the educational requirements for each occupation.	
Supplementary Research Study: why the pregnant woman must increase her intake of the following: Calcium, Iron, Protein, Vitamin A, Thiamine, Riboflavin, Niacin, Ascorbic Acid, Vitamin D, Calories. List good sources of each of the above. Speaker: Social Worker, County Health Department. Speaker: Health Educator from County Health Department to: (1) Discuss role as it relates to case (2) General functions (3) Educational requirements (4) Salary. Observation - Prenatal classes for expectant mothers.	Should be able to state how nurses are often involved in educational programs. Should be able to list facilities which provide prenatal educational programs.	A nutrition textbook, "Nutrition During Pregnancy and Lactation," 1968, California State Department of Public Health.

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Dentist	Performs dental work as needed.	How to perform dental examinations and dental work.	Oral Anatomy
Dental Hygienist	Educates expectant mother on importance of good dental practices.	Recommended dental practices.	*Oral disorders which may result from neglect: dental cavities, abscesses, periodontitis.
	Cleans teeth as necessary.	How to clean teeth, types of teeth, anatomy of the mouth.	*Systemic effects which may result from oral disorders: infections in mouth and neck, connective tissue damage to heart, kidney and joints.
Dental Aide	Assists dentist and dental hygienist.		*Effects of oral neglect on family and society, financial cost for repair, effect on productivity.
			*Taken from <u>Framework of Health Instruction in California Schools, 1970.</u>

PRENATAL CARE

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Speaker - Dentist or Dental Hygienist (County Health Department). List and discuss functions of professional personnel in the dental and parodontal areas: General Practitioner, Orthodontist, Periodontist, Dental Technician, Dental Hygienist. Demonstration: Importance of Cleaning Teeth. (1) Each student chews a piece of litmus paper. The paper will be slightly acid-pH 6-8. (2) Eat a piece of candy, chew another piece of litmus paper, the pH goes down to 2-3 - strongly acid. Eating sweets encourages development of dental caries. Discussion: Major fetal development at each trimester of pregnancy. (Students can be assigned to report on major developments of each trimester.)	Should be able to list the functions of a dentist, a dental hygienist and a dental aide. Should be able to state the educational and training requirements, and salary of each of the above occupations. Should be able to list the major fetal developmental sequence of each trimester of pregnancy.	Textbook on oral anatomy. "Pregnancy in Anatomical Illustrations," class sets available from The Carnation Company, Medical Department, 5045 Wilshire Blvd., Los Angeles, California 90036.

PRENATAL CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Doctor	Administers complete physical examination (refer to Case I) and performs a pelvic examination on first visit. Measures uterus on subsequent visits. Listens to fetal heartbeat. Discusses problems with patient. Performs pelvic examination as deemed necessary.	How to perform physical examination (Case I), physiology and anatomy of the female. Normal pregnancy, maternal and fetal changes. Diagnosis and treatment of problems related to the pregnancy. Fetal physiology and anatomy. Fetal development.	
Hospital Personnel	Takes expectant mother on tour of labor and delivery facilities of the hospital.	Layout of obstetrical ward of hospital.	

PRENATAL CARE

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Tour or slides of obstetrical ward. Field trip and experience - Prenatal Clinic.	Should be able to list the components of an obstetrical ward.	

LABOR AND DELIVERY

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Admitting Clerk	Preadmits patient (about 2 months before delivery--varies with the hospital). Takes deposit of patient.	Admission forms and appropriate terminology. Cost of delivery, pre- and postpartum care. Cost of prenatal care. Cost of neonatal care. Other costs such as doctor, anesthesiologist, etc.	
Nurse's Aide	Assists patient in signing appropriate consent forms.	Preparation of consents.	Reasons why consents are essential--medical--legal ethics.

LABOR AND DELIVERY

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Speaker - Admitting Clerk to discuss: (1) Job functions, requirements, (2) How a patient is admitted and assigned a room and bed, (3) Costs of maternity care. Discussion: Maternity coverage of major health plans. (Use health insurance brochures used in Module I.)	Should be able to identify and fill out admission forms. Should be able to list the steps involved in admitting a patient to the hospital. Should be able to state the coverage of the major health plans.	
Module on Preparation of Consents, Releases, and Incidents by Lucile Wood.	Should be able to state the reasons why consent forms must be signed by a patient. Should be able to state that only an adult--(a male or female who has reached the age of 21 or who has contracted a valid marriage) can sign a consent. Should be able to list the important steps in obtaining a signature on a consent form.	Allied Health Professions Project Module, Preparation of Consents, Releases, and Incidents by Lucile Wood.

PREPARATION OF CONSENTS, RELEASES AND INCIDENTS

I. DIRECTIONS TO THE STUDENT

Obtain sample packet of consent, release, and Incident Report forms from your instructor. Proceed through this lesson. When you are through, complete the post-test.

II. GENERAL PERFORMANCE OBJECTIVE

You will be able to obtain consents and releases and complete Incident Reports according to legal requirements.

III. SPECIFIC PERFORMANCE OBJECTIVES

Upon completion of the Unit, you will be able:

1. To recognize the circumstances and procedures which require consents or releases and to prepare appropriate reports.
2. To explain the purpose and meaning of consents and releases to patients and other persons and obtain a legally valid consent or release from a patient or guardian.
3. To recognize an incident, and to report and record incidents in the proper manner.

IV. VOCABULARY

biopsy-----excision of a small piece of tissue for the purpose of examination and diagnosis.

bone marrow-----soft tissue (spongy) in the hollow of long bones. The center bone marrow is yellow and is chiefly fat; the surrounding tissue is called the red bone marrow because it manufactures red blood cells.

lumbar puncture-----the act of puncturing (with a needle) the subarachnoid space in the lumbar region (middle back) of the vertebral column, usually between the third and fourth lumbar vertebrae. The puncture is done for diagnostic or treatment purposes, e.g., injecting an anesthetic.

radiology-----branch of medicine which deals with x-rays and other radiations for the purpose of diagnosis or treatment.

V. INTRODUCTION

What is the Purpose of Consents and Releases?

The purpose of releases and consents is the protection of the patient's rights. In treating a patient without a valid consent, the hospital (as a business organization), the physicians, and the hospital employees place themselves in a position of liability (responsibility by law).

To reduce or eliminate the possibility of a patient bringing a legal suit against the hospital, physicians and employees, the patient or his legal designate (guardian) signs an agreement (consent, release) for treatment. This agreement also protects the patient from having any treatment for which he did not sign. For the above reasons, the relationship between hospital and patient is contractual. (A contract is a binding agreement between two or more parties.)

Item 1: Common Types of Consents

- A. Usually the general admission procedure includes an Admission Agreement. This agreement provides for nursing care, medical treatment (other than surgery or surgical procedures), and release of information (to insurance companies, workmen's compensation insurance, etc.) It generally has paragraphs about the patient's valuables and his financial agreement with the agency. This agreement is usually executed with several copies, one of which is given to the patient and another placed in the patient's chart. In some agencies, there is a waiver clause in certain Admission Agreements giving the agency (and patient) the right to settle grievances out of court. This is done to speed up legal proceedings and to decrease court costs. This Admission Agreement Form is filled out by the admitting office personnel.
- B. Consent to Operation and Administration of Anesthetics (sometimes called a Surgical Consent): This form is used for every surgical procedure. The patient authorizes a particular physician(s) to perform a specific operation. It also allows for the administration of anesthesia and for the services of pathology and radiology.

Depending on agency policy, this form may also be used for procedures which may be carried out in the patient's room under local anesthesia and for the services of pathology and radiology.

These forms are usually initiated by the nurse in charge of the patient's pre-operative preparation (as specified in the agency procedure manual). The form is completed as a routine step in the pre-op preparation; however, many physicians write a specific order to obtain a signed consent. In the case of a surgical procedure, he states exactly what the procedure will be. This information is entered in the appropriate blank on the operation consent form.

In an emergency situation where the patient is unconscious and no family is present and immediate surgery is indicated if the life is to be saved, the consent for operation can be signed by two physicians. In this case, however, the form would be initiated by the nurse.

- C. The above two consent forms are the most commonly used. Others include:
 1. Consents for use of experimental drugs or treatments. The agency form is always used. It may be initiated by the doctor or nurse. Usually there is an agency procedure to be followed when using experimental drugs or treatments.

2. Refusal of drugs, treatments and other procedures. The agency form is used and is usually initiated by the nurse.
3. Consent for photograph. The agency form is used and is usually initiated by the nurse or representative of the public relations department.
4. Permit for using patient's own electrical appliances. The agency form is used and is initiated by the nurse.
5. Release of body to the mortuary. Agency form is initiated by the nurse.
6. Autopsy permit. Agency form is initiated by the nurse upon the order of a physician. Some agencies have the physician obtain the "Next-of-Kin" signature. Follow agency procedure.
7. Authorization for consent to treatment of minor. Agency form is initiated by nurse.

Item 2: Common Types of Releases

- A. Leaving Hospital Against Medical Advice form is used whenever a patient demands to be discharged from a hospital against medical advice (AMA). This form is generally made out in duplicate and must be offered to the patient, even if you believe he won't sign it. Encourage him to sign. If he does not, a notation must be made on the patient's chart to that effect. AMA discharges are reported at once to the attending physician, the nursing office, and administration. Every effort should be made to avoid this action by the patient.
- B. Release from Use of Siderails form is used when a patient refuses to follow agency policy regarding the use of siderails; the patient must sign this release. If the patient refuses to have his siderails up as per policy, make every effort to remove safety hazards. Lower the bed, move objects that would be harmful, and check the patient frequently.

Record on the patient's chart that he has been instructed about siderail regulations, but refuses (release signed or not signed), and that the doctor, nursing office, and administration were informed (if indicated by your agency policy).

Item 3: Who May Sign Consents or Releases?

Generally, any adult may sign a consent or release if he is not under a guardianship (as in the case of incompetency). An adult is any person, male or female, who has reached the age of 21 years or who has contracted a valid marriage.

Minors are persons who fail to meet the criteria of adulthood, as stated above. Minors may be treated when the authorization to treat the minor has been signed by his parent or legal guardian. An emergency situation, e.g., life or death, may be handled differently as prescribed by agency policy. Every parent of a

minor child left in the care of baby sitters, in school, or on vacation should give written permission for treatment of the child in case of illness or injury at a time when the parent cannot be reached. This would avoid the many hours spent by treatment facilities trying to obtain a legal authorization to treat.

The patient should first read the consent or have it read to him, so that he knows what he is signing. Ask the patient to explain what he is signing, not "Do you understand?" Frequently patients say they understand when they do not because they wish to avoid embarrassment. If the patient still does not understand after explanation, postpone his signing of the consent until the doctor can explain. All dates, times, and signatures must be in ink, including witnesses' signatures. Follow your agency policy regarding the witnessing of consents. Usually there are specific regulations as to who may sign documents as a witness, e.g., RN only, admitting clerk, notary public, etc.

Important Steps

Key Points

Consents and Releases

1. Obtain form and equipment: consent, pen, and surface (e.g., clip-board) to write on.

If you are responsible for securing consents, make sure that patient's name, age, sex, room number, physician, and type of surgery or procedure are correct before you take it to the patient. (this preliminary information can be completed on the form before taking it to him for signature.) Forms are usually stored in a designated place in the nurse's station.

2. Wash your hands, identify the patient and explain the procedure.

Give the consent form to the patient to read, or read it fully to him. Make sure he understands the form. Ask him to explain what he understands the form to say. Clarify if he does not understand.

3. Obtain his signature

Ask the patient to sign his full name in ink in the appropriate space. You write the date and time in the space provided. If the patient refuses to sign the consent, refer to your charge nurse. She will notify the physician and await his order. The final determination about the consent is the responsibility of the physician.

NOTE: If the patient cannot write his name but can make an "X", you will need two witnesses.

If you obtained the patient's signature, you must witness his signature. Sign your full name and title with a pen. This form becomes a part of the patient's chart or record. See sample surgical consent at the end of this unit.

4. Placed completed consent or release on patient's chart.

See sample forms in your packet.

Item 4. Incident Reports

Incident Reports are made out if there is an error in treatment or a patient accident occurs. They are not part of the patient's chart as are consents and releases, but are intended for the hospital administration and attorneys. They alert the hospital administration to the possibility of litigation (law suits).

A. What constitutes an "Incident"?

The following generally constitute incidents that are reportable:

1. Patient falls down
2. Patient is burned.
3. Articles are lost inside patient, e.g., following a surgical operation.
4. Personal articles are lost or damaged.
5. Medication errors.
6. Errors in patient identification, e.g., giving the medication to the wrong patient..
7. Injection injuries, e.g., needle injury to a nerve during medication injection.
8. Treatment injuries.
9. Thermometers broken in patient's mouth, rectum, bed, etc.

B. Who Completes Incident Reports?

The nursing personnel most familiar with the incident, or who observed its happening, should complete the account of the incident according to the agency policy.

- C. If an incident occurs, provide emergency and safety measures for patient; call for help, either verbally or by patient call bell. Your team leader will notify a house physician or the patient's own physician.

After patient comfort and safety are provided, try to obtain the patient's account of the incident. You will need this to complete the report. Carry out doctor's order for care if incident necessitates follow-through, e.g., patient falls and breaks an arm--doctor orders an X-ray, etc.

Incidents: Immediate Procedure

Important Steps

1. Provide for patient's safety and comfort.
2. Return patient to bed.
3. Complete incident form.
4. Secure patient's report of incident.
5. Place completed form on patient's chart.

Key Points

Call for help verbally or by signaling with the patient's call bell. Do not try to move patient by yourself because you may hurt the patient and yourself. Remove any safety hazards such as broken glass, etc. Provide for his warmth.

Do this as soon as possible. Get assistance as needed. Make patient comfortable. Follow doctor's orders if given, e.g., call for an X-ray, discontinue a blood transfusion, etc.

Ask team leader for assistance in completing your history of the incident and other patient information. Charting should be clear, concise, and accurate.

After patient is calmed or has been seen by a physician, you may ask him to relate what happened to cause the incident, if he is aware there was an incident. Write this information in the space provided in the report. It is desirable (when appropriate) to quote patient's own words. You will start the comment on the form: "The patient states that"

Physician will sign in the appropriate place; one section is forwarded to the nursing office, one to the administration, and one remains on patient's chart.

VI ADDITIONAL INFORMATION FOR ENRICHMENT

Consents, Releases and Incident Reports provide important safety aspects for the patient, you, and your agency. Adhere to the agency's established policies.

VII APPENDIX

Sample consents, releases, Incident Reports.

Consents, Releases and Incidents

POST-TEST

Check all of the following statements that are true.

- _____ 1. A new consent must be obtained before an operation can be performed by a physician other than the one originally named in the consent for the operation.
- _____ 2. A consent usually is not required when a patient is admitted to a hospital only for observation.
- _____ 3. A consent for treatment of a married woman who is under 21 years of age must be obtained from her husband.
- _____ 4. A minor may legally consent to his own treatment if an emergency exists and his parent or guardian is not available.
- _____ 5. A physician does not incur liability if he performs emergency surgery on an unconscious patient without a consent other than the general admission agreement.
- _____ 6. A specific consent must be obtained for a blood transfusion.
- _____ 7. A specific consent must be obtained for photographing a patient.
- _____ 8. A patient must sign a release before he can leave a hospital against the advice of his physician.
- _____ 9. When a patient signs a release from use of siderails, this relieves the nurse of responsibility for his safety in bed.
- _____ 10. An occurrence is classed as an incident only if it involves actual or possible injury to a patient or other person.
- _____ 11. When an incident involves a patient, a copy of the incident report must be entered in his records.

12. What is the purpose of a consent or release?

13. Suppose a patient fails to understand the form. You try to explain, but he says he still does not understand. What do you do?

14. If the patient refuses to sign the form even though he understands, how far should you go in trying to persuade him? What do you do when his guardian or relative refuses to sign?

15. Name two common types of consents.

(1) _____ (2) _____

16. Name two common types of releases.

(1) _____ (2) _____

17. Define an adult (as it relates to signing consents and releases).

18. List four instances which constitute an "incident."

(1) _____
(2) _____
(3) _____
(4) _____

Consents, Releases and Incidents

PROGRAMMED LEARNING ANNOTATED ANSWER SHEET

- No. 1 and No. 7 are true. (pp. 2 and 3)
12. To protect the patient's and the hospital's rights. (p. 1)
13. Refer to his doctor for clarification and withhold signing of the consent until the patient understands. (p. 4)
14. You do not need to persuade the patient, family, or guardian. Refer to the nurse and she will notify the physician. He will then determine what action to take. The final responsibility rests with the physician. (p. 4)
15. Any of these: Admission Agreement; Surgical Consent, Consent for Use of Experimental Drugs; Consent to Photograph; Autopsy Permit, etc. (pp. 2 and 3)
16. Any of these: AMA; Release from Use of Siderails; Release of Body to Mortuary, etc. (pp. 3 and 4)
17. Any person who has reached the age of 21 years or who has a valid marriage contract and is mentally competent. (p. 3)
18. Any of these: patient fall; patient burn; medication or treatment error; error in patient identification; broken thermometer; damaged or lost personal articles, etc. (p. 5)

Preparation of Consents, Releases, and Incidents

PERFORMANCE TEST

1. Complete an incident form from the following information.

At 3:45 a.m. Mrs. Mary Volk, 223², fractured hip, 87 years old, patient of Dr. G. Marshall, fell out of bed while trying to get up to the bathroom. Siderails were down, and the bed was in the low position. Patient had received her nembutal gr lss h.s.

2. Complete a surgical consent form for Mr. Victor Welk, 257', patient of Dr. S. First, for a right inguinal herniotomy. He is scheduled for surgery at 9:00 a.m. on Thursday, December 1.
3. Complete a Release of Siderails Form for Mr. V. Welk in question #2.

PERFORMANCE CHECKLIST

Module: Consents, Releases, Incidents: Completion of Incident Form

Date: _____

Student: _____

Instructor: _____

Institution: _____

Prerequisite module(s) _____

SATISFACTORY *
UNSATISFACTORY
NOT APPLICABLE
NOT OBSERVED

Obtained the proper form.

Filled in preliminary information.

Washed hands.

Identified patient.

Explained procedure to patient.

Verified the patient's understanding of the form.

Completed the history of incident as related by the patient--the patient stated that "_____".

Documented the report, if possible, i.e., listed all individuals familiar with the incident.

Transmitted the form to the appropriate departments.

447 * PASS _____ FAIL _____

Consent or Release Form

Date: _____

Tractor: _____

Prerequisite module(s) _____

SATISFACTORY ★

UNSATISFACTORY

NOT APPLICABLE

448 ★ PASS FAIL

PROFILE (Continued from page 421)

Thirty-three weeks have now passed since Mrs. Sommers' first visit to the doctor concerning her pregnancy. She is at home watching television when she notices contractions in her lower abdomen. These contractions begin to come regularly and when they come every ten minutes, Mr. Sommers drives her to the hospital.

LABOR AND DELIVERY

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse	Takes expectant mother to labor room or, if she is ready, to delivery room. Performs periodic examinations of expectant mother to determine stage of labor and readiness for delivery. Records notes on Labor Notes Form. Prepares woman for delivery. Monitors fetal heart beat. Monitors labor contractions. Administers medication as prescribed by physician. Monitors mother's vital signs. Records information on appropriate forms.	Delivery room record, recording of appropriate information. Performance of examination. Determination of stage of labor. Preparation of woman for delivery. Normal, abnormal fetal heart rate. Normal contractions, length of contractions, time between contractions, recognition of abnormal signs. Injection techniques. See Cases I and II and Allied Health Professions Module, The Cardinal Signs, by Lucile Wood.	See Cases I and II. See the Allied Health Professions Project Module, The Cardinal Signs, by Lucile Wood.

LABOR AND DELIVERY

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Should review methods of taking blood pressure, temperature and pulse.	Should be able to describe and demonstrate the procedure for taking a pulse rate and blood pressure.	Allied Health Professions Project Module, The Cardinal Signs, by Lucile Wood.
	Should be able to describe and demonstrate the procedure used for taking a temperature.	Case I.
Demonstration of electronic thermometer.	Should be able to recognize and state the value of using an electronic thermometer.	
Demonstration: listening to the fetal heartbeat.	Should be able to describe how one listens to a fetal heartbeat.	
Speaker: Obstetrical Nurse or Obstetrician.	Should be able to state why it is important to monitor the vital signs of the mother and the heart rate of the fetus.	

LABOR AND DELIVERY

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse Anesthetist	Assists in medication and anesthesia for delivery.	Types of medication and anesthetics used in labor and delivery.	
	Records information on Obstetrical Record.	How to administer these--doses of medication and anesthetics.	
	Monitors vital signs.	Monitoring of vital signs.	
Nurse	Sets up medication.	Types of medication, dose, effects.	
	Provides doctor with medication and instruments.	How to administer medication.	
	Monitors fetus.	How to monitor fetal heartbeat.	
	Assists doctor.	Normal, abnormal signs.	
	Records data on Delivery Room Form.	Identification and use of equipment.	
Doctor Midwife	Performs all tasks necessary to delivery.	All of the tasks of assisting personnel. Delivery methods and techniques.	

LABOR AND DELIVERY

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion Discuss items listed on each for: Why is this information important? What does it tell the health care team about the patient? Forms: Obstetrical Anesthesia Delivery Room Newborn Infant Obstetrician's Record Attending Physician's Record Birth Certificate	Should be able to state the reasons for continuous monitoring of fetal heart rate and maternal blood pressure during labor and delivery.	Forms: Obstetrical Anesthesia Delivery Room Newborn Infant Obstetrician's Record Attending Physician's Record Birth Certificate
Midwife History, present role, requirements.	Discussion: Cross-cultural and historical methods of delivery.	Outline "Midwifery" "What is a Nurse Midwife," The American College of Nurse Midwives, New York, New York. "Nurse-Midwives: Can They Fill the OB Gap?" by Donna Ledney, RN, January 1970, p. 38-45. <u>Devils, Drugs, and Doctors</u>, by Howard Haggard, M.D., Pocket Books, Inc., New York, 1959.

LABOR AND DELIVERY

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse Doctor - Obstetrician	Immediate care of newborn. Records information on Newborn Infant Obstetrician's Record.		
Doctor - Pediatrician	Care of newborn. Records information on Attending Physician's Record.	Care of newborn and neonatal care.	
Hospital Clerk	Sends birth certificate in for registration.		
County Registrar	Registers birth.	How to register birth certificate.	

MIDWIFERY

HISTORICAL BACKGROUND OF MIDWIFERY

The village wise-woman, usually having borne several children, held the lowest position in primitive medicine, that of the midwife. "Male midwives were rigorously barred both on the grounds of religion and prudery."

I. Role of Midwife

- A. The midwife's dubious skill was a blend of hearsay, experience, and superstition.
 - 1. Used folk drugs to relieve pain of childbirth.
 - 2. Mother and infant's best chance lay in an uncomplicated delivery and minimal interference by midwife.
 - 3. Tying off the cord was limit of midwife's skill.
- B. Events having to do with childbirth were considered mysterious and relegated to women.

II. Midwives and Witchcraft

- A. The belief in witchcraft and devil worship existed a long time before church authorities began to incite action against it.
- B. In the 13th and 14th centuries church and state began a prosecution of real and alleged witches, which spread across Europe acquiring great momentum.
- C. By 1736, when criminal laws against witchcraft were repealed, approximately 30,000 witches had been put to death; many of them were charged falsely and forced to confession by duress or torture.
- D. The association of midwives with witchcraft was a natural outgrowth of the superstitions, practices and beliefs, of the time.
 - 1. Many superstitions had developed around the mysterious events of childbirth.
 - a. The placenta, umbilical cord, and the caul (membrane covering the fetus) were thought to be articles needed for witchcraft.
 - b. Women in charge of those items came under particular suspicion.

¹Maples, Eric, Magic, Medicine, and Quackery, p. 79.

2. Extent of midwife involvement with witchcraft.
 - a. The midwife was usually an ignorant, unskilled, poverty-stricken, and avoided woman.
 - b. There was temptation to indulge in superstitious practices and witchcraft to gain prestige and a reputation for certain skills.
 - c. Could collect fees for special powers, cures, and foretelling the future.
 - d. They were often accused of witchcraft.
3. Other superstitions linked the midwife with witchcraft.
 - a. Belief that candles used in Black Mass were made of pitch, or of the umbilical cord of an infant.
 - b. The "Witches Ointment" (or "Flying Ointment") was thought to need the fat of babies, preferably that from an unbaptized newborn baby.
4. Drugs used by midwife often not only relieved birth pains but were suggestive of witchcraft practices and experiences of the time.

III. Drug Lore

- A. Pharmacological studies of the ingredients of the "Witches Ointment," described by 16th and 17th century authorities, prove very revealing.
 1. The fatty base allows some of the drugs to be absorbed into the body.
 2. Many of these drugs have pronounced central nervous system and hallucinogenic properties!
 - a. Aconite depresses the cardiovascular system, acts on the central nervous system, and produces sensory paralysis. Can be absorbed through the skin.
 - b. Atropine (present in deadly nightshade) in sufficient doses causes excitement, delirium, and unconsciousness.
 - c. Moonshade and henbane contain powerful narcotic hallucinogenic agents.
- B. There can be little doubt that the ointments could induce the vivid illusions which the witches described especially when used by highly suggestible and sometimes unstable individuals.
 1. Hallucinations and the exhaustion resulting from smearing the ointment on her body could convince the witch that she had been on a long journey.
 2. Today we would say, "She went on a trip."

3. Current use of hallucinogenic drugs has provided us with case histories describing experiences such as those recording witches' "flights."
4. Today we do not resort to mystical interpretations of the illusions produced, for science has given us an understanding of some of the mechanisms of drug action.

IV. Regulation of Midwives

- A. Both church and state made strenuous efforts to regulate the practice of midwifery.
 1. Initially, state control indicated more concern with the character of the midwife than with her ability.
 2. Church licensing primarily related to proper baptism of the infant, if it seemed the baby would die before a priest could be called.
- B. The Wurzburg regulations, 1555, forbade midwives either to carry off or to bury the placenta and specified that it be cast into running water.
- C. In England, basic regulations of midwifery evolved in the 16th and 17th centuries, with licensing being mandatory.
- D. In 1649, a Book of Oaths listed the oath for midwives, which included in Item 5, "you shall not in any wise use or exercise any manner of witchcraft, charme, or sorcery, invocation, or other prayers than may stand with God's laws and the King's."
- E. Later ordinances were passed dealing with the proper training of midwives and their seeking help of physician, when needed.

Summary

1. Witchcraft well established in Europe.
2. Some midwives had the opportunity and were tempted to enjoy its forbidden delights.
3. Proportion of midwives involved cannot be determined.
4. The most convincing evidence of wrongdoing is indirect: the manifest concern of both local governments and church, which for more than 300 years by municipal ordinance, episcopal injunction, pastoral exhortation, examination, and oath sought to stay the midwife from "all manner of witchcraft, charm or sorcery."²

²Forbes, The Midwife and the Witch, p. 132.

V. Physicians and Midwives

By the late 17th century, great strides in medicine were taking place in which, with the use of new discoveries, tools, and concepts, men began to dominate not only the several medical fields but obstetrics as well.

- A. William Harvey discovered the circulation of blood.
- B. Medical books were being produced in great numbers, and physiology was being analyzed scientifically.
- C. In 1650, British midwifery was still conducted primarily by uneducated women.
- D. The Chamberlens, a 17th century family of physicians, had invented obstetrical forceps but kept it a family secret for almost 100 years. Their success in decreasing mortality made them famous.
- E. Until the forceps became generally known in 1733, male practitioners were called in only for difficult cases.
 - 1. They used destructive instruments.
 - 2. They had little experience with normal labor.
- F. The general use of the forceps, the development of other surgical instruments, and thorough investigation of problem births produced trained doctors known for their success in obstetrics.
- G. By the late 1800's, physicians took over the functions of the midwife.

VI. Status of midwifery today in the United States

The "stigma" still attached to the word midwife is believed to be one reason that the development of this field, as a profession for nurses, has been so slow in the United States. In the minds of many people the title still implies an old granny who had no formal training.

- A. There has been a history of some midwife training programs.
 - 1. Modern nurse-midwives, trained in England, were serving in Hayden, Kentucky, in 1925.
 - 2. In 1932 the first program of nurse-midwifery was started by the Maternity Center Association of New York City.
 - 3. There are now 12 nurse-midwives (C.N.M.'s) in New York, and the need for them seems to be increasing.

- B. In modern countries which have well-trained nurse-midwives, better prenatal and postnatal care have lowered infant mortality.

Sweden, which has the lowest infant mortality rate, routinely turns mothers, early in pregnancy, over to the care of midwives.

- C. The U.S. ranks 12th in infant mortality (22.1 deaths per 1000).
- D. Dr. Louis Hellman, professor and chairman of obstetrics and gynecology at Downstate University Medical Center and Kings County Hospital Center, Brooklyn, New York, cites statistics which show that by 1980 at least 40 percent of babies will be born on wards of municipal and community hospitals in which there will not be enough physicians to deliver the babies or even to provide adequate supervision.
- E. There is a widening gap between the needed obstetrical care and the amount of care available; the number of obstetricians is declining.
- F. Today there is an increasing need for more midwives to assist in prenatal-postnatal care and normal obstetrics.
- G. The title "midwife" still carries an unfavorable connotation, because of its past history. The name's association with disreputable practice must be changed.
- H. The American Nurses Association first officially recognized nurse-midwifery in 1967, but no national medical or hospital association has yet taken an official stand in support of modern nurse-midwifery.
- I. As yet, only two States have licensing laws specific to this speciality (New York and New Mexico).

POSTPARTUM EXAMINATION

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Doctor	Six week postpartum examination.	Performance of examination, signs and symptoms to look for.	
	Discusses and prescribes methods for family planning as requested.	Methods and information related to family planning.	
Nurse Public Health Nurse	May discuss family planning with patients--both in classes and on an individual basis.	Methods and information related to family planning. Female Reproductive System Components: Ovaries Fallopian Tubes Uterus Vagina External Genitalia Mammary Glands - Breasts Hormones regulate menstrual cycle and ovulation. Review Pap smear.	
Social Worker Public Health Nurse	Follow-up visits to mother.		

POSTPARTUM EXAMINATION

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Should be able to list facilities which provide postpartum examinations.		
Should be able to list facilities which provide information on family planning.	Field trip to facilities providing service.	Julian/Jackson, The Holt Program in Health Education, 1967.
Should be able to state that family planning may improve the health of family members* and will be able to state reasons.	Observation - Family Planning Educational Program.	"Pregnancy in Anatomical Illustrations," The Carnation Company, 1959, p. 5.
Should be able to list reasons why family planning is important to society.		
*Taken from "Framework for Health Instruction in California Schools K-12," 1970.		

WELL BABY CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Receptionist	Greets patient, makes appointments.	How to greet patient.	Terminology related to well-baby care.
Clerk	Files records, pulls records, types name on record.	Clerical skills, filing.	Schedule for appointments.
Nurse Nurse's Aide	Weighs and measures baby.	How to use scale, measuring length of infant, measuring head circumference.	Weight, length, and head circumference norms for infant. These measurements are indicators of physical and mental development.
Public Health Nurse	Performs PKU test.	Recording measures on form. How to perform PKU test, read and record results.	Definition of PKU test. Description of disease. Treatment of disease.
Doctor	Performs physical examination.	How to examine the infant, signs and symptoms to look for. (Refer to Case I.)	
(Nurse Practitioner)	Orders immunizations.		

WELL-BABY CARE

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Observation of a Well-Baby Clinic Discussion: Immunizations and Schedules.		"Inoculations" in <u>Baby and Child Care</u>, by Benjamin Spock, Pocket Books, Inc., 1970, p. 177-182. <u>The Medicine Show</u> by Consumer's Union.
Demonstration and Lab: Urine testing for PKU. Genetics of Phenylketonuria. Film: "PKU - Preventable Mental Retardation," Color, 16 min., 1967, available from the California State Department of Public Health.	Should be able to state the reasons for taking physical measurements on the infant. Should be able to describe the disease, PKU, and will be able to describe how one tests for it.	<u>Principles of Human Genetics</u>, by Curt Stern, W. H. Freeman, San Francisco, 1960.

WELL BABY CARE

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Doctor Nurse	Immunizes infant with appropriate vaccines.	How to immunize. Injection technique. Types of immunization. Immunization schedule.	How immunizations pro- tect the infant against diseases: Immunity: (1) Natural (2) Acquired

WELL-BABY CARE

ACTIVITIES	OBJECTIVES	MATERIALS & REFERENCES
Observation - Immunization Clinic Discuss immunity. List communicable diseases against which a child is generally immunized. List immunization schedule. Have students indicate those diseases for which they have been immunized. Discuss how students may get immunizations: Private Medical Doctor County Health Department Discuss need to keep immunizations up to date.	Should be able to list communicable diseases against which children in the United States are generally immunized. Should be able to list the schedule for each type of immunization.	<u>Communicable Diseases in California</u>, by the State Department of Public Health, 1966.

MATERNAL & CHILD HEALTH

TEST

1. List three (3) health care facilities to which a person could go to find out if she were pregnant.

2. a. A doctor performs a pelvic examination on a woman who comes in because she suspects a pregnancy. He will also order a test. What is the name of the test commonly used to find out if a female is pregnant?

- b. This test is based on the presence of a hormone in the pregnant female. Name this hormone.

3. State one reason why it is important to check regularly on the blood pressure of the pregnant female.

4. a. Why is the urine of the pregnant woman periodically tested for albumin?

- b. How would you perform this test?

5. Mrs. Sommers is 8 months pregnant. Her basic daily diet plan includes:

- (1) Meat or fish
- (2) Egg
- (3) Bread-enriched or whole grain
- (4) Margarine or butter
- (5) Coffee

a. Is she missing any important foods in her diet? ____YES ____NO

b. If your answer is yes, list one type of food she is missing_____.

6. If a patient of yours did not care for fish, what other sources of protein would you recommend that she eat?

7. A pregnant woman in the third trimester needs to consume more calcium than a non-pregnant woman. Name two foods which are good sources of calcium.

8. a. In terms of coverage for maternity care (prenatal care, labor and delivery, hospital costs, postnatal care), and care of the newborn, which type of insurance coverage would you recommend to a patient? Circle your answer.

Blue Cross

Blue Shield

Kaiser Foundation Health Plan

9. Give one reason why it is important that consent forms for medical treatment be signed by the patient or legal guardian.

10. Why should consent forms be signed before medical treatment is started?

11. a. What is a postpartum examination?

b. When does it usually take place?

c. Why is it important?

12. Where can a woman go for a postpartum examination? Give at least two (2) health care facilities which provide this service.

13. List two (2) health care facilities where an individual can receive information and methods for family planning.

CASE VIII

DRUG ABUSE (OVERDOSE)

Introduction

Every culture throughout recorded history has had a number of mentally and emotionally disturbed individuals. Treatment has varied according to the prevailing viewpoint of causality. Today, we know that such illness has many causes, including the stresses of a complex, rapidly changing society.

This unit concentrates on drug education, putting drug abuse into its true perspective as a character disorder. It is important to emphasize the criteria of an emotionally stable person and the exciting alternatives available to young people in lieu of drug use.

CASE VIII

DRUG ABUSE

Health Problem: Drug overdose from oral ingestion of barbiturates.

Facility: Hospital Emergency Room Profile.

Purpose

To introduce the student to the dangers of drugs as well as their beneficial uses.

To introduce the student to some of the occupations in the mental health field.

Objectives

The student should be able to describe the functions of the personnel involved in the case.

The student should be able to perform tasks specified within the framework of the case.

CASE VIII

DRUG ABUSE

Procedure

This case involves subject matter about which the students are likely to have opinions and strong feelings. The unit, therefore, can profitably feature class discussion and debate.

Profile

It started out as a gag. Everyone was bringing pills from home and would exchange them at the party Saturday night. John wasn't too thrilled about the idea, but not wanting to be considered chicken he said O.K. along with the others. Suddenly he had an idea. He would bring his mother's red-coated vitamin-C pills. He felt sure he could switch them for any pills he was given.

At the party, John had his substitute vitamins ready but never got to use them. It had been arranged that the girls and boys would "feed" each other the pills. John was chosen to be first. Carol had brought phenobarbital capsules (no one else knew what kind of pills they were). John felt trapped, but was afraid to refuse. "Well, one won't hurt me," he thought, but the game continued, and after the second time around John didn't care anymore. Soon he lost count of how many pills he had swallowed. He began to stumble, dropped his coke, and suddenly fell to the floor. When the others couldn't rouse him after an hour they became frightened. Two friends volunteered to take him to the emergency room at the hospital. They made up a story about finding him this way and told the nurse in charge they thought it was an "overdose."

MENTAL HEALTH

Topic Outline

- I. The field of mental health includes the prevention, detection, treatment and rehabilitation of mental and emotional disorders.
 - A. There are many causes of mental illness.
 - B. Many factors have to be considered when releasing a patient from a mental hospital.
 - C. Characteristics of an emotionally healthy person.
 - D. Extent of the problem of mental illness.
 - E. Classification of personality disorders.
- II. Drug dependence--a form of character disorder.
 - A. Facts about drugs.
 - B. Case study of a drug overdose by oral ingestion.

MENTAL HEALTH

Content Outline

- I. The field of mental health includes the prevention, detection, treatment, and rehabilitation of mental and emotional disorders.
 - A. There are many causes of mental illness; some are known and preventable. They stem from physical and/or psychological factors which include:
 1. Congenital brain defects (occur before or during birth), e.g., effect of certain drugs or diseases of mother on developing fetus, such as thalidomide, German measles, heroin, etc.
 2. Genetic disorders
 - a. Phenylketonuria, an inherited biochemical defect, which causes mental retardation. Early diagnosis and treatment can lessen the effects of this disorder.
 - b. Down's syndrome (Mongolism). All patients have an extra chromosome or its equivalent.
 3. Food Deficiencies

Severe protein deficiency in infancy and early years can cause permanent retardation.
 4. Various drugs and poisons, including alcohol.
 5. Diseases, such as syphilis, which in later stages cause severe central nervous system damage and symptoms of mental illness.
 - B. The successful return of a patient from a mental hospital or treatment in an out-patient clinic involves many factors:
 1. Evaluation of psychiatric conditions by a psychiatrist.
 2. Follow-up by psychiatric social worker.
 3. Community resources: sheltered workshops, rehabilitation, retraining, etc.
 - C. Some characteristics of an emotionally healthy person.
 1. The ability to meet the stresses of life and choose appropriate methods of solving problems.

2. A realistic sense of one's own worth.
3. Ability to interact constructively with others.
4. Ability to find satisfaction in efficiently performing work.
5. Normal behavior; culturally acceptable.

"Behavior is appraised as normal according to degree and in the context of time and place."*

D. Extent of the problem of mental illness.

1. During the Second World War, one of every eight U.S. men examined for the draft was rejected because of emotional problems.
2. It is estimated that on any given day, 2 million people in the U.S. are disabled by emotional illness.
3. Psychiatric hospitals in the U.S. treat over a million people a year.
4. From 7 to 12 percent of school-age children and youth need professional help for severe emotional problems.
5. It is estimated that about 10 percent of the population will, at some point in their lives, suffer serious emotional illness necessitating hospitalization.

(Have a student determine the number of people who will have to be hospitalized based on the current population of the U.S. - 2 hundred million.)

E. Classification of Personality Disorders.

The following limited classification of disorders is introduced with reservations. There are many such classifications, and they are convenient for discussing disorders. However, they should not be used to pigeonhole people or their problems. Indeed, many specialists concerned with emotional health tend to dispense with labels and classifications altogether, preferring instead to discuss adjustive and maladjustive behavior in broad, uncategorized terms. As Menninger has said:

"We label mental diseases the way little girls label their dolls. And one little girl's Helen is not like another little girl's Helen. In the same way, Dr. A's 'schizophrenia' is different from Dr. B's 'schizophrenia.' And as long as we think of mental illness as a horrible monster with a name like schizophrenia--we won't be able to prevent it."**

*B. Kogan, *Health: Man in a Changing Environment*, New York, Harcourt, Brace & World Inc., 1970, pages 332, 333.

**Kogan, page 332.

CLASSIFICATION OF PERSONALITY DISORDERS

A. Psychotic disorders

1. Organic causes: Characterized by lesions in the brain.
2. Functional: There is no demonstrable lesion in the brain.
 - a. Schizophrenia
 - b. Manic-depressive psychoses
 - c. Paranoia

B. Neurotic disorders

1. Psychoneuroses (neuroses)
 - a. Anxiety states
 - b. Phobias
 - c. Obsessive-compulsive reactions
 - d. Hysterias
 - e. Traumatic neuroses
2. Psychosomatic disorders: Peptic ulcer and asthma, for example, may be psychosomatic.

- C. Character disorders: Examples include drug dependence, alcoholism, and criminal behavior. Some psychologists include sexual deviations, such as homosexuality, in this group. Also included is the psychopathic personality.

Psychotic behavior disorders are more severe than neurotic disorders. The individual displaying psychotic behavior has lost much contact with reality.

D. Drug Dependence; a form of character disorder.

1. Facts about Drugs (Use references)
 - a. What they are.
 - b. How they function
 - (1) Addiction (physical)
 - (2) Habituation (psychic)
 - c. Why people use drugs.
2. Case study of an overdose by oral ingestion of a drug, e.g., barbiturates.

MENTAL HEALTH

Guidelines

Although the case study is developed around a barbiturate overdose, other dangerous drugs, including alcohol, should be discussed.

This case was selected because the emergency treatment is more dramatic than, for example, an overdose of LSD. The treatment for an overdose of LSD involves keeping the patient from harming himself and sometimes using a tranquillizer (thorazine).

In addition, it should be pointed out that an overdose by means of injection has to be treated differently from one taken orally. Pumping the stomach would be of no value with an injected drug.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
Nurse	Interviews patient or person who brings patient to hospital.	Questions that would reveal kind, amount of drug taken, and time lapse since ingestion.	Faster and more accurate treatment of drug and method of use are known including how long drug has been in patient.
MD, nurse, orderly (all work as a team)	Observes and records general appearance, signs and symptoms, e.g., state of pupils, skin, speech, etc.	Signs and symptoms result from dose, level of acquired tolerance, environment, physical condition, personality traits, and the potential effects of other drugs.	Familiarity with laws related to drug abuse.
	Measurement of vital signs.	Blood pressure--hypertensive with amphetamines. Pulse--tachycardia with hallucinogen stimulants, narcotics (withdrawal). Respiration--respiratory depression with barbiturates, tranquilizers, opiates.	
	Diagnoses for appropriate treatment: e.g., for barbiturates. Removal of abdominal contents.		
	a. Induces vomiting if patient is alert enough, using emetics.	a. 10-15 ml. of syrup of Ipecac, to be repeated in 15-30 min. if emesis does not occur.	
	b. Gastric intubation and lavage (pump the stomach).	b. Patient is kept on his side with head hanging over the edge of the bed. Lavage with isotonic saline. Only small amounts of fluid should be used at one time to prevent the passing of the drug into the small intestine.	
	c. Saves aspirate for lab analysis.	Lavage until returns are clear.	Should not use lavage on agitated patients or those suspected of ingesting hallucinogens, solvents, strychnine, or lye. Basic treatment involves getting the drug out of the patient's system. Precautions must be taken to make sure the tube is not in the trachea. If in doubt, place the fill end of the tube in a glass of water; continuous bubbling on expiration implies the tube is in the trachea.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Discussion: Amphetamines, barbiturates, hallucinogens. Films and/or guest speaker.	The student should be able to describe the characteristic physiological and mental effects caused by amphetamine, barbiturates, and hallucinogens.	Sources for pamphlets, films, speakers: LA County Health Department LA City Police Department Special projects such as DARE at UCLA's Neuropsychiatric Institute LA City Schools
The instructor will <u>teach the parts and function of the digestive system</u> with attention to the following:	The student should be able to name the parts of the digestive system.	
a. Why it would be easy for the tube to be inserted into the esophagus. (Review respiratory system.)	The student should be able to describe why the stomach is pumped for barbiturate overdose.	High school physiology text, charts, models, etc.
b. Discuss the importance of not allowing the drug to reach the small intestine.		
c. Discuss effects of barbiturates on central nervous system; discuss potentiating effect of drugs, use the combination of alcohol and tranquilizers.	The student should be able to define a "depressant" and relate the dangers of taking alcohol and barbiturates together.	

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
<u>TEAM</u>			
MD	Induces increased urine flow.	Procedures and techniques for infusing liquids.	Many drugs are excreted in the urine; therefore, the amount of time they spend in the stomach may be reduced by increasing the flow of urine or the filtration of the drugs in the kidneys.
Nurse	a. Forces fluids orally b. I.V. by fluids introduced		A battery of tests which detects the amount and nature of the drugs in the patient's urine, blood, and stomach.
Orderly	May order a toxicology panel.	Laboratory tests specific for detection of various drugs.	DIAGNOSTIC VALUE: Different drugs are handled in different ways; identifying the drug allows for a specific mode of therapy to be undertaken. Specific chemicals are available to be used if a particular drug is recognized.
	Other supportive measures are taken as needed for: a. Respiratory depression b. Shock	See Case VI for function of inhalation therapist.	First aid.

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Instructor will review the function of the kidneys (refer to maternal and child health case). Discussion	The students should be able to describe the relationship between fluid intake and urine output.	High school physiology text.
Review first aid	The students should be able to name the first aid measures for reducing shock and respiratory depression.	See previous cases.

<u>PERSONNEL</u>	<u>TASKS</u>	<u>ESSENTIAL KNOWLEDGE</u>	<u>RELATED KNOWLEDGE</u>
MD	Monitors condition of patient and orders required treatment.	Avoid use of drugs to treat drug abuse, if possible.	
	Orders psychological evaluation of patient.	Drug taking is a symptom, not a disease. There are multiple reasons for drug abuse.	
Psychiatrist at Hospital, Drug Clinic, Multipurpose Center, or Mental Health Clinic.	Evaluates patient's mental condition. Determines level of counseling. Orders psychotherapy or participation in group on an inpatient or outpatient basis.	Psychiatric training and skills.	
Mental Health Technician or Psychiatric Social Worker.	Recommends recreational or vocational programs as needed. Assists professional staff.	Specialized training required.	

<u>ACTIVITIES</u>	<u>OBJECTIVES</u>	<u>MATERIALS & REFERENCES</u>
Field trip to a drug clinic. Debates on the various aspects of drug taking and/or developing slide show on drug education. Students will compile list of resources available for help with drug problems.	The students should be able to discuss why people take drugs. The students should be able to name these sources for drug help.	
Supplementary activity: Small group investigations of mental health facilities. (See pp. 487, 488.)		"Community Mental Health Technician I; Psychiatric Social Worker I." Class specifications from the County of Los Angeles Civil Service Commission.

DRUGS

Suggested Topics for Classroom Discussion

Debates or Role Playing

1. There are many ways for getting a "high" without using drugs.

Name all the alternatives available in life for rewarding and pleasurable experiences, e.g., music, dancing, being with friends, feeling of health, etc.

2. Many people take drugs even when they don't want to, because of pressures from friends.

Indicate or show all the ways that are used to put pressure on an individual to make him conform.

3. People use drugs for various reasons, e.g., to gain courage, to "cop out," to do what everyone else is doing, etc.

4. One would fight as hard as he could to prevent an outsider from "brain washing" him (manipulating his behavior and mind)! Why then would anyone permit drugs to manipulate his mind and behavior? Why would anyone willingly surrender control of his mental life?

STUDENT ACTIVITY

DRUGS

- A. You (class) are all Health Educators concerned about the drug problem in your community.

You have the opportunity to make a slide show for teenagers about drugs and drug use, to help in drug education.

There are many aspects to the drug problem. Select a theme you think would be the most effective and valuable for your audience.

- B. Following are possible subjects. You may have others.

1. There are many ways for getting a "high" without using drugs.

Show all the alternatives available in life for rewarding and pleasurable experiences. For example: listening to music; dancing; being with friends; feeling healthy and energetic; being in a beautiful environment; earning money; reading a fascinating book; being involved in sports; etc.

2. Many people take drugs even when they don't want to, because of pressure from friends.

Show all the ways that are used to pressure an individual into taking drugs--daring someone to use a drug, making him feel left out or square, making drugs easily available; encourage drugtaking as a rebellion against parents. Can end slide show with individuals turning into sheep, following one another.

3. Providing information about drugs.

- a. What they are.

- b. How they function.

4. Why people turn to drugs: to gain courage, to cop out, to do what everyone else is doing, etc.

5. Addiction--what can happen to a person who is "hooked."

6. Make drug use look ridiculous, childish, silly.

- C. The class will vote on the theme to be developed.

- D. After the class has selected a topic, the second hour will be spent developing visual materials.

1. Pictures from magazines.

2. Drawings.

3. Posters.

4. Any creative visual way they want to develop the idea.
 5. Deciding on a title.
- E. The items developed will be photographed on 35 mm slides.
- F. The students will review the slides:
1. Select those slides that best tell the story, put slides in sequence.
 2. Select an appropriate record to be played during the slide show.

MENTAL HEALTH - COMMUNITY FACILITIES

A. Students will divide into small groups. Each group will be responsible for developing a case presentation for a selected health problem. Each group will be responsible for visiting the facility where the patient with the given health problem would receive care. The students will interview a staff member of the facility and inform themselves on:

1. Patient entry into the facility.
2. Treatment received and occupations, tasks, equipment involved in the treatment. (Refer to case development form.)
3. Referral out from facility (if applicable).

Other information to be gathered should include:

1. General staffing pattern of facility.
2. General types of services - type of patient treated, problems handled, etc.
3. Eligibility for services.
4. Cost of services.
5. Hours service given.
6. Location and telephone number of facility.

Students should ask for copies of informational brochures relating to the facility.

- B. Each group will present the case to the entire class.
- C. A map of the school community should be prepared and hung on the board. Each facility will then be located on the map.

NOTE: The district Health Department has maps of the community. One student could be assigned to develop an enlargement of the map for classroom use.

**CLASS SPECIFICATION**

TITLE: COMMUNITY MENTAL HEALTH TECHNICIAN I

DEFINITION: Under close supervision of a professional member of a Psychiatric Emergency Team, assists in and takes appropriate measures in responding to calls for crisis intervention from the community to deal with, evaluate, and control persons with suspected mental disorders and actively participates in the sub-professional, continuing, out-patient care and treatment of patient-clients receiving services from a County Mental Health Clinic.

EXAMPLES OF DUTIES:

Applies principles of mental health in relationships with mentally disordered patients, as a member of a Psychiatric Emergency Team, in crisis intervention and in a clinic setting which does not involve in-depth treatment or analysis.

Acts as therapist or co-therapist for patient-clients receiving out-patient clinic services, in non-professional aspects of treatment involving development of patients' self-reliance in daily living.

Develops, supervises and encourages participation in group and individual patient-client program activities.

Assists professional staff members in the conduct of occupational, recreational, and vocational therapy programs.

May make visits to patient-client's home to reassure him and to attempt to prevent further crisis.

Observes, evaluates, records and reports to professional staff significant changes in patient-client's condition.

Prepares appropriate forms in connection with emergency calls, evaluation of patient-clients and in maintaining patient-clients' records.

Aids or restrains patients to prevent injury to themselves or others.

MINIMUM REQUIREMENTS:

LICENSE: California State License to practice as a Psychiatric Technician and a California Class "3" Driver's License.

PHYSICAL CLASS: "3" - Moderate.



THE COUNTY OF LOS ANGELES

CIVIL SERVICE COMMISSION

CLASS SPECIFICATION**TITLE:** PSYCHIATRIC SOCIAL WORKER I

DEFINITION: Performs professional social work in connection with the treatment of mentally and emotionally disturbed persons and, as a member of a psychiatric team, assists patients and their families in understanding and finding solutions to problems resulting from mental illness.

EXAMPLES OF DUTIES:

- Interviews patients, their relatives, friends, and others to obtain complete socio-psychiatric case histories of patients.
- Observes, evaluates and reports on behavior, attitudes, general emotional maturity, and mental stability of family members.
- Participates in conferences with psychiatrists, psychologists, and other professional staff members to discuss and evaluate cases and to develop casework treatment plans.
- Interprets diagnostic findings, treatment plans, goals and dispositions to the family and assists them in working with the clinical team toward achieving these goals.
- Acts as co-therapist under close supervision, participating in individual, group, and family therapy for inpatients or outpatients and their families.
- May participate in research to increase knowledge and improve methods.

MINIMUM REQUIREMENTS:

TRAINING AND EXPERIENCE: A Master's degree from an accredited school of social work including supervised field work experience in psychiatric social work - OR - a Master's degree from an accredited school of social work and one year's experience in psychiatric, medical, family, or child welfare social work involving problems of mental or emotional adjustment and the use of psychiatric consultation.

LICENSE: California Class "3" Driver's License or its equivalent.

PHYSICAL GROUP: "C" - Light.

MODULE III

THE HEALTH CARE COMMUNITY

MODULE III

THE HEALTH CARE COMMUNITY

The opportunity for concentrated work experience in the hospital setting will, we hope, help the student in deciding on his field of interest. A four-week period near the end of the school year has been designated for this purpose.

The role of the employer must be reexamined prior to the job experience. Included in this section are programmed units relating to behavior, and an exercise on how to learn a task.

After specific assignments are given, evaluation forms concerning the work experience will be furnished to students and hospital personnel to be filled out.

After completion of the work experience, the students, with the help of the teacher, will develop a presentation to summarize the year's work.

The final eight weeks of the first phase of the project are devoted to the content just described, and are divided into three units:

Unit 1: Preparation for Hospital Experience (Two weeks)

Unit 2: The Hospital Experience (Four weeks)

Unit 3: Summation (Two weeks)

MODULE III

THE HEALTH CARE COMMUNITY

Unit 1: Preparation for Hospital Experience

Purpose

To make clear to students what will be expected of them in an actual work situation and to prepare them to meet those expectations.

Objectives

Specific objectives are listed throughout the unit under the heading "Sub-objectives."

MODULE III

THE HEALTH CARE COMMUNITY

Unit 1: Preparation for Hospital Experience

Procedure

Content is offered in clearly specified classroom activities. Beyond this, it is important to remember that the students are young people who are about to be thrust into situations that are new to them and possibly frightening. They should be encouraged to ask questions during the preparatory two weeks, and should be aided in preparing to meet the unfamiliar. Role playing can be helpful in this. Finally, it should be emphasized that the teacher and a Field Coordinator will be in the facility while the students are working there, and will be available to them for advice and for adjustment of difficulties if necessary.

MODULE III

THE HEALTH CARE COMMUNITY

Unit 1: Preparation for Hospital Experience

1. Community Health Care Facilities
2. The Hospital Design
3. Work Readiness
 - a. Medical-Legal Ethics
 - 1) "The Health Worker and the Law" (p. 497)
 - 2) "Introduction to Ethics in the Healing Arts" (p. 515)
 - b. The Role of the Learner
 - c. Hospital Assignments
 - 1) Reporting Procedures
 - 2) Time Cards
 - 3) Payroll

THE HEALTH CARE COMMUNITY

Community Health Care Facilities

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Display large street map of your local community. Ask students to name and locate on the map health facilities in their community. As each facility is named, have the student mark the location on the map using a pin color-coded for that type of facility. For example, all hospitals could be located on the map with a red pin; mental health facilities by yellow pins, etc. Record color code for pins on a corner of the map. Discuss services offered at each type of facility. Discuss referral patterns between facilities. For example, a patient can be referred from a hospital to an Extended-Care facility, and vice versa. Use a length of string to connect the pin marking the location of an Extended-Care facility demonstrating that patient referrals are made between these facilities. Discuss whether there are adequate health facilities in the community to meet the needs of the residents.	Study the street map of your community. Name health facilities in your community. Locate these facilities with a pin on the map. Facilities of a given type should be located with the same color pin. For example, locate hospitals with red pins and mental health facilities with yellow pins. Discuss services offered at each type of facility. Discuss referral patterns between facilities. For example, an older patient who was in a hospital for a heart condition may be released to an Extended-Care facility for follow-up nursing care. Discuss whether there are adequate health facilities in the community to meet the needs of the residents.	Should be able to name and locate on a map health facilities in his community. Should be able to list the services offered at each type of facility. The student should be able to describe referral patterns between facilities. Should be able to state whether there are adequate health facilities in his community to meet the health needs of the people.

THE HEALTH CARE COMMUNITY

The Hospital Design

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Obtain the following material: Three 3' x 2' poster boards Marking pens Label the boards as follows: "Patient Care Services" "Facility Support Services" "Technical Services" Set up the boards in front of the class. Ask students to name departments in the hospital. As each department is named, write the title on the appropriate board. For example, the nursing department should be listed on the board titled "Patient Care Services," the laboratory should be listed on the board titled, "Technical Services." As each department is named, ask students to list occupations employed in that department. Record these occupations under the department. Review the general function of each occupation.	Name departments in the hospital and classify each department according to the following categories. Patient Care Services Facility Support Services Technical Services List occupations employed in each department. Review the functions of each occupation.	Should be able to list departments in the hospital. Should be able to list the occupations employed by each department. Should be able to state the functions of each occupation.

THE HEALTH CARE COMMUNITY

Work Readiness: Medical-Legal Ethics

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Distribute AHPP Module, "The Health Worker and the Law," by Lucile Wood, University of California, Los Angeles, Allied Health Professions Project, Division of Vocational Education (p. 497) Review instruction with students.	Study the instruction AHPP Module, "The Health Worker and the Law," by Lucile Wood, University of California, Los Angeles, Allied Health Professions Project, Division of Vocational Education. Take post-test.	Should be able to complete the post-test accurately (80% accuracy is specified in the module).

THE HEALTH WORKER AND THE LAW

I. DIRECTIONS TO THE STUDENT

Please read the following paragraphs carefully. They will tell you exactly what you are expected to know at the end of the unit. You will need the following items:

1. This programmed instruction unit, pen or pencil.
2. The Post-Test to be taken at the end of the lesson.

If you believe you would be wasting your time studying this unit because of your knowledge and previous experience in this area, please discuss with your instructor the possibility of omitting the reading of this unit and going directly to the post-test.

II. GENERAL PERFORMANCE OBJECTIVE

You will give evidence of your knowledge of the law by answering successfully in a written exam questions based on definitions of legal terms and an understanding of legal problems which might occur during a patient-health worker relationship.

III. SPECIFIC PERFORMANCE OBJECTIVES

In the written post-test you will answer with at least 80% accuracy questions related to the following capabilities. You will be able to:

1. Distinguish in a given situation who is the health worker.
2. Recognize the definition for the term "law" as used in this study.
3. List the main sources for the law and specifically "medical" law.
4. Demonstrate your knowledge of the rights of the individual under the law and how these rights might be violated if consent and medical orders are inadequate.
5. Recognize in given situations when an act can be interpreted as malpractice or negligence.
6. Distinguish civil from criminal law.
7. Demonstrate your knowledge of responsibility in relation to legal records.
8. List several basic rules to follow for the prevention of litigation.

IV. VOCABULARY

- assault-----either a threat or an attempt to injure another in an illegal manner.
- battery-----unlawful touching of another person without his consent, with or without resultant injury. Assault and battery are often charged together because of successful attempt to injure.
- civil law-----pertains to legal relationships between private individuals.
- common law-----term given to unwritten law, customs with authority of law, or precedents established by judges and juries in past cases.
- consent-----permission granted by a person voluntarily and in his right mind. Written consent is safer because it is easier to prove.
- crime-----an act that is forbidden or the omission of a duty that is commanded by a public law and that makes the offender liable to punishment by that law.
- criminal law-----defines legal obligations between the individual citizen and the state; distinguished from civil law, which defines legal relationships between private individuals.
- duty of care-----the obligation under law for a nurse or other health worker to perform services for a patient which meet the common standards of practice expected in her community for a comparable worker.
- ethics-----the discipline dealing with what is good and bad, and with moral duty and obligations. A professional person is characterized by adherence to technical and ethical standards of a profession.
- false imprisonment-----holding or detaining a person against his will.
- felony-----a term used for serious crimes, ones for which the penalty is imprisonment in the state prison for more than one year, and possibly the death penalty.
- invasion of privacy-----a civil wrong that unlawfully makes public knowledge of any private or personal information without the consent of the wronged person.
- libel-----a civil wrong; to communicate in writing defamatory matter about an individual or group to a third party.
- licensure-----authorization by the state to practice one's profession or vocation. Involves control of educational standards, licensing examinations, and prohibitions for individuals who are not licensed.
- litigation-----another term for law suit.

malpractice-----literally "bad practice," it has come to mean professional care that has led to injury, due to faulty practice or neglect.

misdemeanor-----a term used for crimes less serious than felonies; they are punishable by imprisonment in the county jail for a term of less than one year.

negligence-----failure to perform in a reasonably prudent manner.

privileged communication-----any personal or private information which is relevant to his care, given by a patient to medical personnel.

reasonable care----- (Refer to definition for duty of care.) The health worker is protected by law if it can be determined that she acted reasonably as compared with fellow workers; the patient is protected by recognition of the health worker's responsibility for duty of care.

slander-----spoken statement of false charges or misrepresentations which defame or damage another's reputation as distinguished from libel, which is written.

statutory law-----that law which has been enacted by a legislative branch of the government.

tort-----a civil wrong; it may also be a crime.

will-----a written document legally executed by which a person makes disposition of his property to take effect after his death.

NOTE: The student should be aware that these definitions are simplified for the sake of this introductory study.

V. INTRODUCTION

As a new worker in the health field it is important for you to become aware of the problems which may occur when you care for patients. The purpose of this instructional unit is to provide you with information that will assist you in identifying and preventing medical-legal problems.

It may be disturbing to realize that although you and your classmates are here to learn specific techniques and procedures used in caring for patients, there is a need for concern about the threat of medical-legal problems which could arise in your daily work.

A health worker may be defined as anyone who comes in contact with the patient, to serve him and to have access to his records. As a consequence, the patient must place great trust in the health worker. Violation of the patient's trust and confidence by the health worker may be interpreted as an illegal or immoral act.

Before presenting information relating to the health worker and the law, a brief look is required at the types of law which are encountered in everyday living. This will serve as a foundation for the more specific instructions to follow.

The word "law" may be used in different ways. For example, there are physical laws, such as the law of gravity; moral laws, such as the law of Moses; common law (unwritten law), based on custom and precedent, which constitutes the foundation of our country's legal system; and statutory or legislative laws which are written laws passed by the legislative branch of government, both federal and state.

You should now know and understand the following definitions: health worker, physical law, moral law, common law, and statutory law. If you cannot define these terms or think of examples of each, re-read this introduction and the vocabulary. You may ask your instructor for additional resources.

Item 1: Protective Laws

When a patient places himself in our hands, he expects us to protect his life and all his human rights under the law. You can see how great our responsibility is to him. The law tries to protect the patient and the health worker as well by setting up standards and licensure for medical care.

The concept of basic human rights has slowly developed and is now widely accepted throughout the country.

We may think of this as a Bill of Rights for Patients. Certain basic rights are assured. It sometimes happens, however, that to give good health care these rights must be limited. For example, a patient's basic right of freedom is interfered with to provide him with medically indicated bed-rest. If bed-rest is needed, there must be a patient's consent as well as a doctor's order for the health worker to follow. Patients usually sign a general admission agreement when entering a health agency for treatment. If the patient does not voluntarily agree to sign the consent, the doctor and the health agency could be guilty of false imprisonment.

We must be doubly careful in any patient care situation which involves detaining or restraining a patient. For example, protective restraints are often used to remind a patient to hold his arm still while he is receiving intravenous fluids. Protective restraints may be used to restrain an elderly, irritating patient. In such a case, "protective restraints" may be questionable. Are they used to protect the patient or to prevent annoyance to the health care team?

There may be additional ways of violating a patient's rights, e.g., assault and battery. "Assault" is the handling of a patient with the threat to do harm or to restrain him forcibly. An example of a threat could be, "If you don't stay in your room, we'll put you in restraints."

As an extension of the verbal threat, there may be actual illegal bodily contact without the patient's consent; in this case the action is called "battery." An example of this situation occurs in Emergency Rooms when patients are brought in by the Police Department to have blood drawn for testing on a drunk driving charge. The procedure cannot be carried out without the patient's consent, unless he has been arrested, charged, and taken into police custody. When someone breaks the law the status of his basic rights changes.

However, some patients must be restrained to protect themselves and others. This is often true with confused, disoriented patients. In such cases, be sure your judgment is correct and that you have the proper authorization to restrain.

It is important that you understand from the foregoing paragraphs that there is protection for all. The patient is not to be coerced and the health worker must be carrying out valid orders.

Gossiping about a patient is another important area in which you must be extremely careful of the patient's rights. Gossip may be considered "defamation of character." A carelessly spoken word can be judged "defamation by slander."

A written entry in a patient's chart such as "patient was a cranky old so-and-so today," is considered written defamation and is called "libel." It can be declared an illegal act.

As you care for patients, you will often be entrusted with personal information, especially relating to their condition. This is called "privileged communication" and must be held in absolute confidence. You have heard about privileged communication in the context of clergyman, lawyers, doctors, news reporters, etc. Now you, too, will have this responsibility.

The last in our list of abuses of a patient's rights is the "invasion of privacy," as a person in a specified location, or with certain information. An example of this could be a press photographer bursting into the patient's room following admission after a spectacular car wreck in which all other persons involved were killed. It is your responsibility as a health worker to protect your patient from this.

It is often difficult to analyze the patient's basic rights in light of prescribed medical services. In the next section we will consider the quality of care the patient receives and what the law says about it.

However, before moving on to the next section, you should be able to define and give an example of the following terms: standards and licensing laws, Bill of Rights, right of freedom, false imprisonment, assault, battery, slander, libel, privileged communication, and invasion of privacy. If you cannot define these terms, re-read this section. If you can, then proceed with the next section.

Item 2: Legal Judgments

Many a judge has been faced with the dilemma of ascertaining that the patient is guaranteed safe care while the conscientious health worker is protected from lawsuits.

The patient is legally entitled to good care; he pays for it and expects it. The law supports the patient and makes the health worker responsible for "duty of care."

On the other hand, the health worker is protected by the concept of "reasonable care." This is a standard which states that the level of care must be equal to the care given by a comparable worker in similar circumstances.

If the health worker does not meet this standard of reasonable care and if harm therefore comes to the patient, the worker may ultimately be judged negligent. Negligence may be failure to give reasonable care or giving unreasonable care.

The terms "negligence" and "malpractice" are sometimes hard to distinguish. For most purposes, the term malpractice has come to mean professional care which is below the standard expected by the community. In other words, mal = bad, or faulty practice.

To clarify these terms, let's look at the following examples:

When a nurse failed to give a prescribed medicine or treatment, negligence was involved because she overlooked it or perhaps ran out of time on her shift.

Malpractice, on the other hand, would be giving the wrong medication or treatment to the patient.

It is customary to hold the person with the highest level of training and licensure responsible for the consequences of what he does or neglects to do. The registered nurse is responsible for the care of patients on her assigned list, even through other workers, such as the NA or LPN (LVN) perform some of the duties. She is the one ultimately held responsible. This is not meant to indicate, however, that persons of lesser training or licensure would not be held responsible for their own actions. It simply means that the person of the highest level of education and licensure is the final person to be held responsible--often it may be the physician. This concept deals with the chain of command; i.e., the person to whom one is directly responsible for one's actions.

Before leaving the subject of negligence and the possibility of being sued by a patient (commonly called a lawsuit or litigation), let us consider the seriousness with which a lawsuit may be treated by the court.

If the degree of injury to the patient is slight and the intention of the health worker was not to harm, the law may be able to keep the entire litigation between the patient and the health worker instead of going to court. In this case, the accusation is called a "tort," is treated under civil law, and is known as a civil suit.

On the other hand, if it is shown that the health worker intended to injure the patient, the case is removed from settlement by civil law and becomes a criminal suit. The defendant has not only injured a person (patient) but has committed an unlawful act against society.

It is understandable that the more serious the crime, the more severe the punishment. Serious crimes are called felonies, while lesser crimes are called misdemeanors. Both types are handled under the criminal law procedures.

The section on legal judgments is now complete. You have received information on many complex concepts. Before moving on to the next section, be sure you can give a definition and example of each of the following terms: duty of care, reasonable care, negligence, malpractice, lawsuit, litigation, tort, civil law, criminal law, felony, and misdemeanor. If you know these terms, continue with the next section.

Item 3: Legal Documents

As a health worker, you may handle or be responsible for certain documents, records, and legal papers. Three important documents you will handle are the patient's chart, the written consents, and his will.

When the term "legal document" is used, it indicates that it is acceptable in courts of law as evidence of truth, the real thing; it is above reproach, and is subject to the scrutiny and standards of any legal person.

Let us examine a patient's chart in these terms. Is it complete? Is it signed? Is it in ink and in no way altered? These are questions asked when determining whether it is an acceptable legal document.

In other words, if the health worker were to appear in court, the lawyer showing an entry in the patient's chart would be expected to ask, "Is this your signature? What did you mean by what you said here?" Later in this course you will learn to chart your nursing care on the patient's chart. With the knowledge you have gained from this unit, you will be more aware of how important it is to chart legibly, accurately, and according to prescribed charting rules.

Another very important legal record is the "signed consent." In court action, the lawyer can be expected to ask any or all of the following questions:

"Is there a consent form available for use in this instance?"

"Was the patient competent to sign?" (He was not disoriented, confused, etc.)

"If the patient was not competent to sign, is the signature on the consent that of the legally authorized person?" (Specific information on this subject is discussed in a later unit on consents, releases, and incidents.)

"Did the patient consent to what was done, or can this consent be otherwise interpreted?"

"Was the consent signed before the treatment was given?"

Without proper consents signed by the patient, we can be accused of illegal acts (there are certain agency rules about who may witness consents; these will also be discussed in the unit on consents, etc.).

Another important document is the will. You may be asked to witness a patient's signature when he signs a will. According to law, a will must be signed in ink, signed voluntarily by the patient while in sound mind, and witnessed by at least two persons over the age of 21.

The health worker may be required to witness a signature on a will. Follow the agency procedure. Many agencies designate one individual who may be permitted to sign as a witness to a signature on a will.

Perhaps you can think of ways in which you might prevent becoming involved in a lawsuit? If you responded with comments along the following lines, you are to be commended for your understanding of your legal responsibilities for your patient's care:

"I will be a conscientious worker because the patient is my responsibility, no matter how I feel or how distracted I am."

"I will be observant of the patient's rights and avoid any violation of them."

"I will be careful with the paperwork for which I will be responsible. I will do all in my power to see that all documents are legally correct."

"I understand what is meant by chain-of-command. In the future I will do only those things for which I have been trained and supervised to do."

Item 4: Conclusion

You have completed the lesson on the Health Worker and the Law. You should have a good idea of the law as it relates to you while performing your job of caring for patients. Hopefully you are now aware of how important it is to do your best. Always be mindful that in your work in the health field, you are entrusted with the care of another person, and this is the most precious trust in life. In the next unit we will discuss ethics and how it differs from law and what your ethical responsibilities will be in caring for your patient.

When you feel sure you understand this lesson, ask your instructor to allow you to take the post-test. You will be expected to pass the test with at least 80% correct answers.

VI. ADDITIONAL INFORMATION FOR ENRICHMENT

The material presented in this unit is very complicated. You may be interested in learning more about your legal responsibilities as a health worker; if so, ask your instructor for additional reading assignments.

The Health Worker and the Law

POST-TEST

I. Match statement on the right to the most appropriate term on the left.

- | | |
|---------------------------------|--|
| ___ 1. duty of care | A. to threaten to injure another person |
| ___ 2. statutory law | B. detaining unlawfully |
| ___ 3. invasion of privacy | C. the highest concept of right and wrong |
| ___ 4. slander | D. meeting expected standards |
| ___ 5. ethics | E. illegal act between persons |
| ___ 6. negligence | F. less serious crime |
| ___ 7. privileged communication | G. to make personal information public without due consent |
| ___ 8. battery | H. failure to give reasonable care |
| ___ 9. tort | I. laws made by legislature |
| ___ 10. misdemeanor | J. verbal defamation of character |
| | K. unlawful handling of a person without his consent |
| | L. unwritten law |
| | M. information kept in trust by medical personnel |

II. Fill in the blanks with the term being defined:

1. If someone commits an illegal act against society, this is called a ____.
2. A lawsuit may also be called a ____.
3. A civil suit is one brought between an individual and a/an ____.
4. Written defamation of character is called ____.
5. Detaining a person unlawfully against his will may be interpreted as ____.

III. Choose and circle the one best answer:

1. A ward clerk never saw a certain patient in the hospital but was accused by his family of defamation of character. She was most likely guilty of:
 - A. assault and battery
 - B. felony
 - C. slander
 - D. negligence

Post-Test, Law (Cont'd)

2. A nurse's aide inserted a rectal thermometer in an unconscious patient and left the room to finish another task. The patient moved, broke the thermometer, and sustained injury. Which of the following might she be sued for?
 - A. reasonable care
 - B. felony
 - C. assault
 - D. negligence
3. A patient's chart after dismissal is:
 - A. kept for seven years
 - B. public property
 - C. a legal document
 - D. given to his doctor
4. A registered nurse is asked by the doctor to perform a treatment for his patient that she does not know how to do; however, she does it and harms the patient. The person or persons most likely to be held for negligence is the:
 - A. doctor
 - B. registered nurse
 - C. supervisor
 - D. hospital
5. A will is not valid if when signing it the patient can be proved to have been:
 - A. under the influence of sleeping pills
 - B. not mentally competent
 - C. coerced
 - D. displeased with the witnesses
 - E. all of these
 - F. none of these
 - G. A, B, and C
 - H. C and D
6. A patient may not be detained at the hospital until he pays his bill because this may be considered the illegal act of:
 - A. invasion of privacy
 - B. false imprisonment
 - C. defamation of character
 - D. libel
7. A malpractice suit can be brought against a hospital or health worker for the following:
 - A. a stroke patient falling from a wheelchair
 - B. a diabetic not receiving insulin as ordered
 - C. a patient overexposed with X-ray
 - D. a patient losing a valuable ring
 - E. all of these
 - F. A and B
 - G. A, B, and C
 - H. A and C

Post-Test, Law (Cont'd)

8. A nurse may be said to have acted with reasonable care if she:
 - A. is a specialist in emergencies
 - B. has been a supervisor
 - C. has nursed for twenty years
 - D. did what other nurses of similar background would have done in similar circumstances.
9. A nurse's aide was instructed by a licensed practical nurse to place a hot water bottle for comfort at the feet of a patient who is paralyzed from the waist down. It resulted in severe tissue damage. Who will probably be held for an act of negligence?
 - A. the hospital
 - B. the doctor
 - C. the aide
 - D. the licensed practical nurse
10. Which of the following will help the health worker avoid litigation?
 - A. consistent practicing with conscientious care
 - B. obtaining written consents
 - C. always considering human rights
 - D. staying within the limits of her training
 - E. all of these
 - F. A and D
 - G. A, B, and C
 - H. A and C

The Health Worker and the Law

PROGRAMMED LEARNING ANNOTATED ANSWER SHEET

I. 1. D (p. 2)

2. I (p. 3)

3. G (p. 2)

4. J (p. 3)

5. C (p. 3)

6. H (p. 3)

7. M (p. 3)

8. K (p. 2)

9. E (p. 3)

10. F (p. 3)

III. 1. C (p. 6)

2. D (p. 8)

3. C (p. 11)

4. B (p. 9)

5. C (p. 12)

6. B (p. 5)

7. C (pp. 9 and 10)

8. D (p. 8)

9. D (p. 9)

10. A (p. 12)

II. 1. crime (pp. 2 and 10)

2. litigation (pp. 2 and 9)

3. individual (or term of comparable meaning) (pp. 2 and 10)

4. libel (pp. 2 and 6)

5. false imprisonment (pp. 2 and 4)

THE HEALTH CARE COMMUNITY

Work Readiness

Introduction to Ethics in the Healing Arts

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Distribute AHPP module, "Introduction to Ethics in the Healing Arts" by Lucile Wood, University of California, Los Angeles, Allied Health Professions Project, Division of Vocational Education (p. 510).	Study the instructional module, "Introduction to Ethics in the Healing Arts."	Should be able to complete the post-test accurately. (80% accuracy specified in the module.)
Review instructions with students.	Take post-test.	

INTRODUCTION TO ETHICS IN THE HEALING ARTS

I. DIRECTIONS TO THE STUDENT

Please read the general and specific objectives carefully. Study the vocabulary, and proceed through the lesson as directed.

II. GENERAL PERFORMANCE OBJECTIVE

You will demonstrate your understanding of the importance of ethics in the role of the health-related hospital worker. You will answer questions to demonstrate understanding of ethical behavior in health service situations.

III. SPECIFIC PERFORMANCE OBJECTIVES

In a testing situation, you should answer with 80 percent accuracy written questions about:

1. The definition of ethics.
2. The difference between legal aspects and ethical considerations.
3. Persons who make up the health team.
4. The necessity for and utilization of ethics in hospital situations.
5. Application of ethical behavior guidelines in judging appropriate choices of action in eight hypothetical health-related situations.

IV. VOCABULARY

breach-----breaking (infraction) of a law, or of any obligation, tie or contract.

complex-----not simple; complicated.

conduct-----one's actions in general; behavior.

custom-----long established practice; an accepted behavior.

dependent-----having to rely on another person for help or support.

employee-----one who is hired for a specific job or type of work.

employer-----one who hires another for a specific job or type of work.

ethics-----a code of conduct for a particular group representing ideal behavior.

expire-----to cease; to die.

hygiene-----rules designed for the promotion of health; sanitary science.

hypothetical-----for the purpose of reasoning; fictitious with a logical purpose.

ideal-----a standard of perfection or excellence.

overt-----open; not hidden.

solvent-----solution which dissolves a substance, converting it to a liquid.

status-----position of affairs of a person.

unethical-----not ethical; not representative of ideal behavior.

utilization-----to make use of.

value system-----behavior, pattern of conduct, or ideas that are accepted as worthwhile or meaningful.

V.N. student-----vocational nursing student. When they complete their course and become licensed, they are called LPN's. All states except California and Texas call this practitioner LPN (Licensed Practical Nurse). They are graduates of an accredited one-year nursing program.

V. DRAMATIZATION

MISS JOHNSON,
Instructor

We're happy to have the nursing students from the Community College join our hospital orientation session for new employees. Technically, the students are not employees of our Hospital, but they do have their clinical assignments here, and are therefore part of the hospital team. Our topic for discussion today is Introduction to Ethics in the Healing Arts.

MISS SMITH,
V.N. Student

Miss Johnson, what does "Ethics" mean?

MISS JOHNSON

It comes from a Greek word that means "custom". There are many definitions we could use, but let's try this one: "Ethics is a code of behavior that represents the IDEAL conduct for a particular group."

MISS MCGUIRE,
V.N. Student II

Well, I expect to become a Licensed Vocational Nurse (LPN), so will my ethical conduct be different from yours as a Registered Nurse?

MISS JOHNSON

Each profession or vocation requiring a license in the health occupations has a written Code of Conduct that has been approved and adopted by its membership. These codes, whether for the Physician, Registered Nurse, Licensed Practical Nurse or other group have many things in common. For example: (1) the rules are based on reason, good judgment, and an understanding of the difference between right and wrong behavior; (2) they strive to respect the dignity and rights of the individual patient.

MISS SMITH,
V.N. Student

I've noticed that I have a tendency to judge all nurses by the actions of the few I know.

MISS JOHNSON

That's a common reaction and one good reason for each member of a group to strive for ideal behavior. Ethical conduct by the individual members of the group presents the whole group in a favorable light to the public.

MRS. DEEDS,
Housekeeper
Assistant

What do you mean by right and wrong? Maybe what is right for me is not right for you.

MISS JOHNSON

It is true that every person has his own "customs" and perhaps his own value system for what is right or wrong based upon his personal life experiences. However, by accepting employment in a hospital, the worker must accept the "ethics" or "customs" required by the employer.

MR. THOMAS
Orderly

Why are ethics necessary? Couldn't the employer just give us a handbook of rules when we apply for a job?

MISS JOHNSON

Sometimes this is done, but through the ages societies and groups have had codes of conduct as a method of preventing friction between people, improving personal and group status, and encouraging growth or development in one's life. For example, Hippocrates, the Greek Father of Medicine, proposed a code of conduct for physicians before the birth of Christ!

MISS SMITH
V.N. Student

I'd like to know how ethical conduct differs from my legal requirements as a hospital employee.

MISS JOHNSON

That is a point which needs careful explaining. Ethical conduct codes are written and adopted by the membership of the groups. Ideal behavior is encouraged through education, example, and discussion. Hopefully, enforcement is seldom needed. But sometimes a person whose conduct is highly unethical may be disciplined by the group or even lose his membership in the group.

As one of you mentioned earlier, the group is judged by the behavior of its members, so an unethical member is expected to conform or lose his membership privileges. None of you is as yet a member of a professional group, but you are members of the hospital group and as such, unethical conduct which reflects upon the hospital could result in reprimand or expulsion from the hospital--that is, loss of employment.

MRS. SAYRE
New LVN

Miss Johnson, could you explain this a little more and perhaps give us some examples of the difference between unethical and illegal conduct.

MISS JOHNSON

Ethics has to do with our moral responsibilities or behavior as we said, and violation of an ethical concept means that we are not living up to ideal moral or ethical behavior. Legal requirements (laws) are set by the society as a whole, that is, by national, state, or local governments. Violation of these laws places the guilty person in trouble with the law enforcement agencies. For example: ethical conduct for a Registered Nurse or Licensed Practical Nurse requires that the uniform and cap should not be worn in public places. A nurse who does so is unethical, but she has not violated any laws that will cause her to be arrested. However, if the nurse takes money from the wallet of an unconscious patient, she has violated the law, and the action could result in her arrest and punishment. She has, of course, also committed a serious breach of ethics by her lack of ideal conduct.

MR. THOMAS
Orderly

I don't seem to fit in any group. I don't wear a cap, and I'm not an RN nor an LVN. Where do I get my ethical guidelines?

MISS JOHNSON

As an orderly giving direct patient care, you belong to the Hospital Group. And since you will be working under the direct supervision of the Registered Nurse and also with the Licensed Vocational Nurses, why don't you read the Codes of Ethics for these two groups?

Turn to the appendix at the end of this unit and read the International Code of Nursing Ethics and the Code of Ethics for the Licensed Practical Nurse.

When you have completed these two codes, complete the following questions.

1. Ethics is a code of _____ that represents _____ behavior for a particular _____.
2. A violation of ethical behavior may result in discipline by _____.

3. A violation of a legal requirement might result in discipline by

MISS JOHNSON Now that you have read two Codes of Conduct for some groups of health workers, let's continue our conversation by making a list of specific situations where a hospital worker would have to make a choice in his or her behavior, based upon an ethical judgment. Mr. Thomas, can you name a principle or situation that you have experienced along this line?

MR. THOMAS,
Orderly Yes, I must give the best possible care to each patient regardless of his financial status, religion, race or creed.

MISS JOHNSON Very good.

MR. THOMAS,
Orderly And I must respect his religious beliefs and try not to convert him to mine.

MRS. SAYRE
New LVN That certainly follows our basic guideline of respecting the dignity and basic rights of the individual.

MISS JOHNSON Mrs. Harmon, how do you think that "ethics" affect your relationship with your employer?

MRS. HARMON I guess I should report for work on time, and not leave early, and not take time off unless I'm really ill.

MRS. WALTERS
Nurse Aide How about doing a day's work for a day's pay, and always doing your share of work so that your co-workers can rely on you?

MRS. HARMON I think that would be fair to everyone.

V.N. STUDENT Miss Johnson, I'd like to add to that list. You told us in class that we must stay with our patient if needed until relieved; isn't that part of ethical conduct, too?

MISS JOHNSON Yes. If you were to leave before your relief came, and your patient suffered harm, it might also carry a legal penalty. So you see that the line between ethical (ideal) behavior and legal requirements is sometimes a little hazy. However, the worker who consistently holds to ideal behavior should not have to worry about meeting the requirements of the law. Miss Andrews, you had your hand up.

MISS ANDREWS I read in the employee's handbook that I can't wear any jewelry on duty, nor any nail polish except very pale or clear. Why is that in the handbook?

MISS JOHNSON

The hospital worker's uniform is designed so that it can be easily cleaned to help the worker maintain a well-groomed and immaculate appearance. Unnecessary adornment such as floppy handkerchiefs, jewelry, etc., increase the difficulty of keeping clean, and are usually not permitted with the uniform. Soiled uniforms, jewelry, and other adornments may carry germs which can cause disease or infection. It is your ethical duty to prevent the transfer of germs from patient to patient. This can be easily done by keeping your uniform and hands clean. Organized nursing has had its roots in both military and religious disciplines and adhered quite strictly to the dignity of the uniform as a "symbol" of the profession. However, a great deal more latitude is allowed now--the introduction of pantsuits and colored hose, are two examples. Although there is a gradual decrease in strict adherence to the symbolic uniform, you must still adhere to the basic principles of cleanliness to prevent disease and infections for your own protection as well as the protection of your patients.

In some agencies, particularly in caring for children or the emotionally ill, the nurses wear streetclothes or colored uniforms without the cap. Your employer has the right to establish the standards of apparel for his employees and by accepting employment, you have agreed to accept such standards. Another point about uniforms, try to wear your uniform only to and from work, and not to the grocery store or on shopping errands. When a hospital worker wears his identifying uniform outside of the health setting it is similar to a doctor wearing his stethoscope and carrying his "black bag" to do his errands. Items used in our work often become contaminated with germs and we may carry them to the unsuspecting public when we wear our duty clothes and equipment in public places.

Nail polish is affected by some of the solvents we use and is difficult to keep it undamaged and attractive. Therefore, it is usually neater and less bothersome for you if you do not use nail polish on duty.

MRS. BOYD
Nurse Assistant

Does personal grooming come under the topic of ethics?

MISS JOHNSON

I would think so. Good hygiene and careful attention to cleanliness and grooming make your patient's environment more pleasant. He surely is entitled to that. Incidentally, good grooming includes careful and minimum use of cosmetics--avoid heavy eye make-up, obvious perfumes, extremes of any sort--which are not in good taste for wear in any situation. Frequently, cosmetics have a heavy, sweet odor, which is often

nauseating to an ill patient. Therefore, if you are concerned about your patient's welfare, you will refrain from excessive use of cosmetics.

MRS. BOYD,
Nurse Assistant

Miss Johnson, last week Mr. Goldrocks tried to give me two dollars when I finished his bathtime care. I told him I wasn't permitted to accept it. How could I have handled this situation better?

MISS JOHNSON

Did you notice in the codes of ethics we read that you are supposed to accept only the money given by your employer? Tipping to ensure service could be disastrous in a hospital, couldn't it? It would violate the fundamental concepts of ethics--respect for the dignity and basic rights of the person. How do you think you would react in such a situation?

MISS SMITH,
V.N. Student

Maybe I could let my patient know that it is my pleasure, not only my job, to assist him. I can let him know this by my attitude, and how I respond to his needs.

MISS MCGUIRE
V.N. Student II

I think I might suggest that if he feels like making a cash donation, perhaps he would like to give it to the hospital fund for furnishing the new patient lounge, or whatever current project the hospital has. I think there is a difference between a patient offering me a gift or money when he first comes into the hospital, and if he leaves a handkerchief, card, or candy when he leaves. It is unethical to accept the latter?

MISS JOHNSON

I don't think so, Miss McGuire, because if the patient has gone home he could hardly expect preferential service as a result of his gift. It would be nice though, if you received a gift, to share it with the other team members who also cared for the patient. I guess that would be following the Golden Rule.

MRS. ACALA
Diet Assistant

Something I saw yesterday bothers me. One of the hospital workers took the dessert from a patient's tray and put it in the utility room, and later I saw her eating it.

MISS JOHNSON

Of course, we don't know all the circumstances, but taking what is not ours is called stealing, and that is a violation of law. I wonder if the worker would have openly eaten the dessert if the head nurse or hospital administrator had been present? You are not responsible for the actions of others, but by being responsible for your own actions--you set a good example for others. In some agencies, eating food from a patient's tray is considered cause for immediate termination from your job.

MR. THOMAS
Orderly

What should be done when a person observes someone violating either the law or ethical concepts; doesn't it give consent if nothing is done?

MISS JOHNSON

You are full of hard questions today, Mr. Thomas. No list of rules could be given that would fit every circumstance. Who is involved, the nature of the infraction, and the circumstances must all be taken into consideration. Sometimes it is best to speak directly to the person involved and allow him a chance to alter his behavior, and sometimes a private discussion with your superior will give you appropriate help in deciding what to do.

One of your most important legal and ethical responsibilities in a health care situation is to guard the privacy of your patient. Privacy is one of his basic rights. When a person is sick, he is dependent upon other people to do many things that he cannot do himself. He is entitled to privacy in all respects--about his condition, personal data, his illness, and everything that you might learn because he is a patient. Sometimes it is tempting when a hospital worker is "on the outside" to reveal information about patients. It is exciting to tell something nobody else knows. This is illegal in some instances, and unethical in all instances.

MRS. DEEDS
Housekeeping
Assistant

Sometimes patients ask me questions when I'm cleaning their rooms. Last week one of them asked me if the patient across the hall had died. I didn't know what to say, although I had just finished cleaning his unit after he was taken away.

MISS JOHNSON

Patients are often curious about other patients, particularly about one who is very ill or may have expired. Your ingenuity will be challenged to evade the question, and not appear rude, or dishonest. How do you class members think Mrs. Deeds might have answered her patient?

MISS MCGUIRE
V.N. Student II

Could she have evaded answering by saying something like, "I'm not involved with assigning patients their rooms or in moving them from one room to another."

MISS SMITH
V.N. Student

How about a simple courteous "I don't know."

MISS JOHNSON

That could be a truthful reply, for perhaps the patient did not expire, but was moved to the intensive care unit, or to some other room.

MR. TROYLE
Maintenance Man

I'm a new employee, and my neighbor was hurt in an accident and brought here. I was looking at his chart to see how he was and the head nurse jumped all over me.

MISS JOHNSON

Some of you will see information on a patient's chart. You may have reason to use the chart or to see it by accident. Unless your work requires you to make notations on the chart or to use it in order to give care to the patient, do not read it or even take it from the chart rack. The chart is a legal document, belongs to the hospital, and the material in it is known as "privileged information"--that is, it is very private and is meant only for those people who need it to care for the patient. Privacy of everything surrounding the patient is his right.

Another point about privacy. It is highly unethical to discuss your patients in the cafeteria, hallways, or public places. Family and friends often overhear conversations and misunderstand what is said. Sometimes they think you are talking about their loved one or friend. Loose gossip can be very upsetting to others. Guard your conversation at all times! Discussion of your patients should be limited to those team members who assist or share in his care and then the discussion should occur in the appropriate place, so it is not overheard and misinterpreted by outsiders.

MISS BOYNE
Ward Clerk

I think the topic of ethics is quite complex, but I'm glad we had this class today, because I have some guidelines to help me in my work. I'm going to try to be an ideal employee because it should help to keep me out of trouble with my employer and the law.

MISS JOHNSON

No doubt that is true, but aren't there other good reasons?

MRS. BOYD
Nurse Assistant

Yes, I feel good when I know I'm doing the right thing and when I have done a good job.

MISS JOHNSON

We have made quite a list of ethical guidelines today from our discussion. We can summarize by saying: Whenever you are faced with a situation involving making a moral, or ethical, decision, ask yourself these questions:

1. How will my action or choice affect the patient?
2. How will my action or choice affect my employer or co-workers?
3. How will my action or choice affect me?

If your answer to all three questions is positive, your behavior would uphold the dignity and basic rights of the patient and your employer and maintain your own self-respect, and you have probably made a sound choice.

Let's try out our new concepts of ethics by reading the following hypothetical situations and filling in the blanks or circling the appropriate underlined word or words.

Situation A.

A patient in Room 201 is in critical condition, and although you have not cared for him, you have heard one of the other nurses mention that the doctor feels the patient will not live much longer. A relative of the patient asks you in the corridor if Mr. Brown has improved. Your answer might be: "You probably should speak to the doctor about that." Ethically, who is being considered here?

1. _____ 2. _____
3. _____
4. In any situation where the answer is not clear to you, it is appropriate to refer the question to your (supervisor) (co-worker).
5. In doing the above, you recognize your (legal) (ethical) (both legal and ethical) limitations.

Situation B.

A young girl has been brought in by ambulance to the Emergency Room. You are the ward clerk there and note that she has swallowed a small glass of turpentine and is now having her stomach emptied of its contents. When you go to lunch that day, the other ward clerks want to know why the ambulance had its sirens sounding, how old the girl is, and why she was brought in. Since this was an attempted suicide, the police reporters were also in the hallway. You were the person who recorded the emergency room notes and so you have some information. When asked why the girl took the turpentine, you might answer: (Circle the letter of correct answer)

1. (A) I assume because she is pregnant and unmarried.
(B) She must have had a desire to die.
(C) This information is confidential.
2. In this situation, to discuss the patient not only violates her right to privacy, but could result in a (legal action) (loss of employment) (both of these).

Situation C.

Carol Brown, nurse aide, has always been conscientious and reliable in her work habits. She is scheduled to work on the weekend and receives an invitation from an old friend to spend the weekend at Yosemite National Park. Carol has never been to Yosemite and does not often have such opportunities. She ponders long and hard before arriving at a decision. Persons considered in her decision making would be:

1. _____
2. _____
3. _____

Situation D.

Mr. Grimm in Room 410 always orders his meals from the hospital's special gourmet menu. At noon on Sunday he didn't touch any of the food although the dinner was excellent. The filet and strawberry pie were indeed tempting. You are the dietary aide who is responsible for taking trays back to the kitchen. In an effort not to waste such delectable food, you decide: (Circle correct letter)

1. (A) To eat it yourself.
(B) To give it to a fellow employee who is quite needy and doesn't eat properly.
(C) To ask the dietician to confer with the patient about ordering smaller portions.

Situation E.

Your doctor has observed that you are very tense about your job as a ward clerk in the hospital unit, and has recommended a common tranquilizer for you to take three times a day. You know that often when patients go home, they leave their medications, which are then returned to the pharmacy. You ask the medication nurse if when these tranquilizers are left on a patient's discharge, she could just give them to you, saving you the expense of having your prescription filled.

1. This is a distinct breach of _____ on your part.
2. Your ethical behavior is lowered. However, if the nurse grants your request, she is prescribing or dispensing medicine without a license and this is a _____ offense.

Situation F.

You are a nurse's aide and have cared daily for Mrs. Johann. She has come to rely on you, and when she is ready to go home, wants

to give you a sum of money in appreciation for the "lovely things you have done for her." (Circle the correct letter)

1. (A) You must explain to her that the service is part of her care.
- (B) You are paid a salary for giving service and patients pay for their care also.
- (C) Accept the gift of money and tell nobody so that no one else will feel hurt that she selected only you.

Situation G.

Mrs. Johann insists you must take the money or you will hurt her feelings. Therefore you: (Circle the correct letter)

1. (A) Tell her of some specific need the hospital has to which she could make a contribution.
- (B) Suggest a fund in her name with suitable recognition.
- (C) Accept the gift so that there are no hurt feelings anywhere in the situation.

CODE OF ETHICS FOR THE LICENSED PRACTICAL NURSE

Adopted by The National Federation of
Licensed Practical Nurses

The Licensed Practical Nurse shall:

1. Practice her profession with integrity.
2. Be loyal to the physician, to the patient, and to her employer.
3. Strive to know her limitations and to stay within the bounds of these limitations.
4. Be sincere in the performance of her duties and generous in rendering service.
5. Consider no duty too menial if it contributes to the welfare and comfort of her patient.
6. Accept only that monetary compensation which is provided for in the contract under which she is employed, and she does not solicit gifts.
7. Hold in confidence all information entrusted to her.
8. Be a good citizen.
9. Participate in and share responsibility of meeting health needs.
10. Faithfully carry out the orders of the physician or registered nurse under whom she serves.
11. Refrain from entering into conversation with the patient about personal experiences, personal problems, and personal ailments.
12. Abstain from administering self-medications, and in event of personal illness, take only those medications prescribed by a licensed physician.
13. Respect the dignity of the uniform by never wearing it in a public place.
14. Respect the religious beliefs of all patients.
15. Abide by the Golden Rule in her daily relationship with people in all walks of life.
16. Be a member of The National Federation of Licensed Practical Nurses, Inc., and the state and local membership associations.
17. Not identify herself with advertising, sales, or promotion of commercial products or service.

THE INTERNATIONAL CODE OF NURSING ETHICS

Adopted by the Grand Council of Nurses of the ICN
at Sao Paulo, Brazil, on July 19, 1953

1. The fundamental responsibility to the nurse is threefold: to conserve life, to alleviate suffering, and to promote health.
2. The nurse must maintain at all times the highest standards of nursing care and of professional conduct.
3. The nurse must not only be well prepared to practice but must maintain her knowledge and skill at a consistently high level.
4. The religious beliefs of a patient must be respected.
5. Nurses hold in confidence all personal information entrusted to them.
6. A nurse recognizes not only the responsibilities but the limitations of her or his professional functions; recommends or gives medical treatment without medical orders only in emergencies and reports such action to a physician at the earliest possible moment.
7. The nurse is under an obligation to carry out the physician's orders intelligently and loyally and to refuse to participate in unethical procedures.
8. The nurse sustains confidence in the physician and other members of the health team; incompetence or unethical conduct of associates should be exposed but only to the proper authority.
9. A nurse is entitled to just remuneration and accepts only such compensation as the contract, actual or implied, provides.
10. Nurses do not permit their names to be used in connection with the advertisement of products or with any other form of self advertisement.
11. The nurse cooperates with and maintains harmonious relationships with members of other professions and with her or his nursing colleagues.
12. The nurse in private life adheres to standards of personal ethics which reflect credit upon the profession.
13. In personal conduct nurses should not knowingly disregard the accepted patterns of behavior of the community in which they live and work.
14. A nurse should participate and share responsibility with other citizens and other health professions in promoting efforts to meet the health needs of the public--local, state, national and international.

Introduction to Ethics in the Healing Arts

WORKBOOK ANSWER SHEET

1. Ethics is a code of behavior that represents the ideal conduct for a particular group. (p. 2)
2. by the group, or lose membership in the group. (p. 3)
3. law enforcement agencies. (p. 4)

Situation A (p. 3)

1. Patient - his privacy is respected.
2. Employer or group - you are representing high ideals of confidence.
3. Yourself - self-respect is maintained.
4. Supervisor.
5. Both legal and ethical.

Situation B (pp. 3 and 8)

1. C
2. Both of these

Situation C (p. 5)

1. The patient
2. Co-workers
3. Employer
4. Herself (Any of these)

Situation D (p. 7)

1. C

Situation E (p. 4)

1. Ethical standards
2. Legal standards

Situation F (p. 7)

1. A

Situation G (p. 7)

1. A

Introduction to Ethics in the Healing Arts

POST-TEST

I. True - False. Circle the letter indicating if the question is true or false.

- T F 1. All professions follow the same code of ethics.
- T F 2. Ethics applies only to the doctors and nurses who treat patients.
- T F 3. All persons who have any part in a patient's care make up the health team.
- T F 4. You enter into an agreement to follow institutional policy when you take a job with the hospital.
- T F 5. Since patients are in a dependent position, they must expect their privacy to be invaded during illness.
- T F 6. Information about patients can be discussed freely as long as it is not detrimental to their character.
- T F 7. Personal hygiene and good grooming are related to ethics.
- T F 8. Wearing the symbols of your job while shopping helps to enhance your image in the community and is therefore ethical.
- T F 9. A patient's chart is simply a convenient place for everyone caring for the patient to put notes and findings.
- T F 10. Food which has been taken into a patient's room is meant only for the patient and should never be eaten by others.

II. In the statements below, circle the word "ethical" or "legal" to indicate what guideline or principle is being considered or violated. If both are appropriate, underline both.

- A. Mary Brown constantly comes to work in a soiled uniform which smells strongly of cigarette smoke. Ethical Legal
- B. A patient's chart is left lying open at the desk and you as the maid read it since the patient is your neighbor and friend. Ethical Legal
- C. At a party you tell about a prominent socialite who had given birth to an illegitimate child. Ethical Legal
- D. You delight the girls in the lounge with an account of the antics of a patient who was coming out of anesthetic. Ethical Legal

Post-Test, Ethics (Cont'd)

- E. You ask the medicine nurse to save any unused antibiotics of a certain kind for you to give your child. Ethical Legal
- F. When the returned medications are ready for Pharmacy, you carry them over yourself and take out whatever medicines you need for your own use since they will not be charged to any specific patient. Ethical Legal
- G. An elderly lady gives you \$25 when she leaves the hospital and thanks you for the extra-special way you took care of her plants and flowers during her hospital stay. Ethical Legal
- H. Because you failed to convince a wealthy gentleman not to give you a sizeable amount of money upon his discharge without causing a scene, you accept the money and give it to the supervisor who puts it in a fund for some special equipment. Ethical Legal
- I. Although your contract clearly states that your hours are from 8:00 a.m. to 4:40 p.m., you find you can get to work at 8:30 and leave shortly before 4:00 because your supervisor is away at a conference. Ethical Legal
- J. A discharged patient leaves a lovely dinner ring in the bedside table. You find that it just fits you and slip it into your pocket while cleaning the room. Ethical Legal
- III. Fill in the blanks indicated.

- A. Ethics is a code of _____ for a _____ group representing ideal _____.
- B. Having to rely on another person for help or support of any kind makes a person _____.
- C. Breaking an obligation or contract, or an infraction of behavior is often called a _____ of ethics or contract.
- D. A commonly used word for "die" in hospital usage is _____.
- E. Another word for something which is not simple, but complicated is _____.
- F. Rules designed for the promotion of health and good grooming are collectively called _____.
- G. Behavior which is unethical may result in _____ from the group.

Post-Test, Ethics (Cont'd)

- H. Ethics involve moral decisions and a knowledge of the difference between _____ and _____.
- I. Ethical conduct always respects the basic _____ of the patient.
- J. My hospital conduct involves myself, my employer, co-workers, and the _____.

Introduction to Ethics in the Healing Arts

PROGRAMMED LEARNING ANNOTATED ANSWER SHEET

- I. 1. F (p. 3)
2. F (p. 3)
3. T (p. 3)
4. T (p. 3)
5. F (p. 9)
6. F (p. 9)
7. T (p. 6)
8. F (p. 6)
9. F (p. 9)
10. T (p. 7)
- II. A. Ethical (p. 6)
B. Ethical (p. 9)
C. Ethical, Legal (p. 8)
D. Ethical (p. 8)
E. Ethical, Legal (p. 7)
F. Ethical (p. 7)
G. Ethical (p. 7)
H. Ethical (p. 8)
I. Ethical (pp. 4 and 5)
J. Ethical, Legal (p. 7)
- III. A. conduct; specific; behavior (p. 2)
B. dependent (p. 8)
C. breach (pp. 1 and 4)
D. expire (p. 2)
E. complex (p. 1)
F. hygiene (p. 2)
G. discipline; expulsion (p. 3)
H. right; wrong (p. 3)
I. rights (p. 3)
J. patient (p. 3)

THE HEALTH CARE COMMUNITY

The Role of the Learner

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
DAY 1 Demonstrate "How to Teach a Task." Assign students to teach a task to a partner. Have a pair demonstrate how to teach a task. Discuss how to evaluate progress of learner.	DAY 1 Observe demonstration "How to Teach a Task." Teach a task to a partner. Discuss how to evaluate progress of learner.	DAY 1 Should be able to teach a task to another student.
DAY 2 Demonstrations of learning a task.	DAY 2 Demonstrations of learning a task.	DAY 2
DAY 3 Discuss student objectives for hospital experience. Discuss Hospital Evaluation used by supervisors in evaluating employees.	DAY 3 Discuss objectives for hospital experience. Discuss Hospital Evaluation used by supervisors in evaluating employees.	DAY 3 Should be able to list his objectives for the hospital experience. Should be able to state the factors which a supervisor uses to evaluate an employee.

THE HEALTH CARE COMMUNITY

The Role of The Learner

Teacher Guidelines

OBJECTIVE

The student should be able to discuss attitudes and behavior which are appropriate to the world of work. He should be able to state how the learner influences the teaching situation. He should be able to write personal learning goals.

APPROACH

1. Teach student how to learn by demonstrating how to teach. Focus discussion on the learner and how he could have learned better.
2. Prepare student to become a "sophisticated" employee. Teach him the importance of developing his personal objectives related to the job and how to assess his own contribution to the job.

SUGGESTED METHOD (three days)

First Day

1. Teacher demonstrates to class "How to Teach a Task" (Anderson's "Clinical Instructor Training Program").*
2. Teacher assigns the same task to pairs of students.
3. Have each pair (teacher-learner) demonstrate in front of class. After task is taught:
 - A. Focus discussion on the learner and how he could have learned better (Concept 1).
 - B. Discuss ways to evaluate the learner's progress. Why would supervisor be interested in making such an appraisal? Let students develop on the board criteria for making an appraisal of the learner's progress. (Make up Job Rating Forms using student criteria. Make copies for distribution or write material on board for use on the Second Day.)
 - C. Discuss what the learner is able to gain from this experience. How does the classroom experience relate to what he can gain from hospital experience?
4. Assign remaining pairs of student-learners to demonstrate a health-related task to class on the Second Day.

*Miles H. Anderson, Clinical Instructor Training Program--Tratner's Manual. Los Angeles: UCLA Division of Vocational Education, Rev. 1970.

Second Day

1. Have student-learner pairs demonstrate "learning a task" in front of class and have rest of class rate them on learning criteria developed on the first day. (Discuss student ratings of learners.)
2. Discuss how "learners" felt about "teachers." (Relate to Concept 2, Understanding the System.)

Third Day

1. Complete teacher-learner demonstrations.
2. Ask students, "What's in this experience for you?" (Discuss students' objectives for hospital experience. (See Concept 3.) Have students develop a list of objectives and record these on the "Planned Objectives - Personnel and Job Form.")
3. Pass out a hospital evaluation form used by your hospital. Explain to student that he will be evaluated by each of his hospital supervisors during the work experience. Have him make a self-appraisal of his best qualities (Concept 4).
4. Discuss how student strengths match student objectives. What does student do if they are different? How do student's objectives match supervisor's objectives? What does student do if they are different?

CONCEPTS

1. How to learn:

What can be gained by watching carefully, paying attention, listening?

Asking questions: how does one ask, clarify areas that are not clear?

Accepting criticism: what does the supervisor mean? How does one respond?

Passivity-action: how much, how little?

Checking work: why is it important?

Speed: when does one start to get concerned about how fast the task can be accomplished?

2. Understanding the system:

- A. Who is your boss? What are his expectations?

What is good job performance? How is it measured? Why?

Attendance. Why is it important? Discuss what happens if employee is not at work. What are the obligations of supervisor, can they be met if the employee is not there? What are the employee's obligations to his fellow workers? How does his absence affect their job? Does the employee want to "lean" on others?

Have class discuss what to do in the following situations:

Worker comes in late to work because he missed the bus. What should he have done immediately? (Called in.)

Worker stops at cafeteria on way to assignment. He starts rapping with another employee and is late to work. What happens?

Worker has been saving for a down payment on a car. He gets enough money, buys the car, and takes off the next day to try it out. Discuss, "It's my time, it's my money."

- B. Working with co-workers. How to cope with problems.

Have class discuss what to do in the following situations:

The supervisor makes a mistake in the way he tells the student to set up his instruments. The student follows the "wrong" directions and the supervisor criticizes his ability to follow directions. How does the student respond?

A grouchy patient tips over the food tray the student has just brought for him. He accuses the student of not setting it up correctly and complains to the student supervisor about his performance. What does the student do?

3. Personal Objectives. What are they? (Money, experience, fame, security, fear of being fired, self-satisfaction, dignity, not working too hard, knowing what's expected of him, feeling he's doing something important, recognition for a job well done.) Do these change as you go through life? Does supervisor want these things for the employee?

Have class discuss what to do in the following situation:

High school student nearing graduation takes a job for the summer and decides to stay on after school starts because he wants to buy a car. His mother is very disappointed because the boy does not graduate. What are their personal objectives? How does their age affect their differences?

4. Self-appraisal. Knowing your strengths and weaknesses.

THE HEALTH CARE COMMUNITY

Work Readiness

Hospital Assignments

TEACHER ACTIVITY	STUDENT ACTIVITY	SUB-OBJECTIVES
Inform students of departments to which they are assigned for each of the four weeks. Discuss: 1. Reporting Procedures 2. Time Cards 3. Payroll	Record your assignments for each week. Record information relating to: 1. Reporting Procedures 2. Time Cards 3. Payroll	Should be able to state his assignment for each week. Should be able to state how he is to report to his assignment, how he is to keep track of his time, and how he will be paid.

MODULE III

THE HEALTH CARE COMMUNITY

Unit 2: The Hospital Experience

Purpose

To offer students an opportunity to put what they have studied into practice in an actual work situation.

To provide students with a view of the functioning of a health care facility from the "inside."

To help students adjust to personal interactions in a work setting.

MODULE III

THE HEALTH CARE COMMUNITY

Unit 2: The Hospital Experience

Objectives

Students should be able to meet standards of dress, behavior, and interpersonal conduct acceptable to health care facility personnel.

Under supervision, students should be able to perform selected entry level tasks to the satisfaction of experienced health care facility personnel.

MODULE III

THE HEALTH CARE COMMUNITY

Unit 2: The Hospital Experience

Procedure

Procedure for this unit is covered in the Program Guide.

SECONDARY SCHOOL PROJECT, AHPP
Student Evaluation of Hospital Experience

NAME:

DATE:

DEPARTMENT:

1. Was this visit interesting? _____
2. What tasks did you learn in this department? _____

3. How would you rate your performance?
Excellent _____ Good _____ Fair _____ Poor _____
4. Do you feel you could have been better prepared for this visit? _____
How? _____

5. Would you like to return to this department? _____ Why? _____

PERFORMANCE APPRAISAL
(For Hospital Personnel)

Name: _____

Hospital: _____

Department: _____

School: _____

Date of Work: _____

INSTRUCTIONS: This form should be used to evaluate employee performance. It should be reviewed with the employee. Place a check in the space which best expresses your judgment.

1. QUALITY OF WORK	Unsatisfactory ()	Satisfactory ()	Above Average ()
2. QUANTITY OF WORK	Substandard ()	Average ()	High ()
3. POTENTIAL	Doubtful ()	Promising ()	Above Average ()
4. ATTITUDE	Indifferent ()	Normal Interest ()	Enthusiastic ()
5. COOPERATION WITH OTHERS	Antagonistic ()	Satisfactory ()	Supportive ()
6. JOB SKILL	Low ()	Adequate ()	Good ()
7. INITIATIVE	Needs Prodding ()	Does Assigned Work Well ()	Seeks Tasks to be done ()
8. ATTENDANCE	Unsatisfactory ()	Satisfactory ()	No. of Days Present ()
9. APPEARANCE	Must Improve ()	Satisfactory ()	Outstanding ()

COMMENTS: _____

SIGNATURE OF IMMEDIATE SUPERVISOR _____ DATE _____

SIGNATURE OF EMPLOYEE RATED _____ DATE _____

MODULE III

THE HEALTH CARE COMMUNITY

Unit 3: Summation

Purpose

To give students an opportunity to share their field experiences with each other. To review the past year's work and to prepare for Phase II.

To obtain student evaluation of the project.

To sum up and conclude Phase I.

MODULE III

THE HEALTH CARE COMMUNITY

Unit 3: Summation

Procedure

No objectives have been listed for this unit, because all specific objectives for Phase I should have been met by this time. The structure and content of most of the final two weeks should be left largely to the students. Teacher suggestions can be useful as guidance, however, and some are offered in the following pages. Finally, a culmination day program should be planned and developed by the students.

Class Discussion

This is the first day for a month that the students will be together again as a class. They are returning from a series of new experiences about which they will probably be anxious to talk, to share enthusiasms, disappointments, complaints, boasts. Free, unstructured discussion will probably fill the first two hours back in class. If it does not arise spontaneously, however, or if it starts to lag, a few questions from the teachers should start it going:

What did you enjoy most on the job?

What did you find most annoying?

Did anything occur for which you didn't feel prepared?

What should the school have done to prepare you for such a situation?

If you go to Phase II of the program you will be working regularly in a health care facility. Do you feel prepared? If not, what should the school do to help prepare you?

What classwork was most helpful to you in the job situation?

The Hospital Design

Before the Hospital Experience three poster boards were set up listing occupations and their functions in the areas of "Patient Care Services," "Facility Support Services," "Technical Services." Following the Hospital Experience, return to the board displays. Ask students to name any new departments and occupations they learned about during the experience. Record these on the boards. Add to the list to fill gaps.

Occupational Title Review

A major purpose of the program has been to acquaint students with health care occupations and with some specific tasks associated with various occupational titles. A further purpose is to introduce the concept of "upward mobility." The following test will serve as a review of this material:

KNOWING ABOUT JOBS

NAME _____ SCHOOLS _____

DATE _____

- I. Following are two lists "A" and "B." List "A" contains some occupational titles you have studied this year.

List "B" contains either definitions of the title or task performed by the person holding that title.

Match List "A" with List "B" by placing the correct letter in the right blank in front of each number in List "B."

List A

- A. Midwife
- B. Admitting Clerk
- C. Ward Clerk
- D. Pharmacist
- E. Public Health Sanitarian
- F. Nutritionist
- G. Maid
- H. Physical Therapist
- I. Operating Room Technician
- J. Nurse
- K. Public Health Investigator
- L. Orthopedic Technician
- M. Orthopedic Surgeon
- N. Laboratory Technician (Technologist)
- O. Social Worker
- P. Laboratory Assistant
- Q. Business Office Clerk
- R. Public Health Nurse
- S. Dental Hygienist
- T. Inhalation Therapist

List B

- _____ 1. Verifies pregnancy by laboratory analysis of urine specimen.
- _____ 2. Maintains files.
- _____ 3. Counsels on problems related to pregnancy.
- _____ 4. Educates expectant mothers on importance of good dental practices.
- _____ 5. Enters patients into hospital.
- _____ 6. Performs tasks necessary to delivery.
- _____ 7. Responsible for keeping patient's chart up-to-date.
- _____ 8. Administers ordered medication.
- _____ 9. Cleans room for patient.
- _____ 10. Determines, from radiologists reports, type of treatment needed for fractured leg.
- _____ 11. Aids physician putting broken leg in cast.
- _____ 12. Teaches the patient daily activities.
- _____ 13. Investigates stores and food sources for good health practices.
- _____ 14. Tests water supply to make sure it is safe for public use.
- _____ 15. Vaccinates children who are brought to a health clinic for that purpose.
- _____ 16. Makes up drug orders.
- _____ 17. Makes materials available for family food planning.
- _____ 18. Assists surgeon during surgery by passing requested instruments.
- _____ 19. Administers oxygen to patient.
- _____ 20. Under proper supervision is able to test urine for sugar.

- II. List "C" contains the titles of several entry-level jobs. Each job has a "career ladder" which makes it possible to progress from the entry-job to a more advanced position, after gaining the necessary job experience or completing additional education.

Select an advanced position in List "A" for each of the occupations in List "C," and write the letter in the blank preceding the entry-job.

List C

- _____ 1. Clerical Aide
- _____ 2. Food Service
- _____ 3. Central Supply Worker
- _____ 4. Operating Room Technician
- _____ 5. Community Health Worker
- _____ 6. Rehabilitation Aide
- _____ 7. Cast Room Aide
- _____ 8. Prescription Clerk
- _____ 9. Medical Laboratory Assistant

- III. Below are listed three major areas that are generally used to categorize allied health occupations. In other words, the occupations within each area would have several tasks in common that make it different from either of the two other areas.

Select the occupations from List "C" that are included in each of the three areas and place the number of the occupation in the blank spaces following each area.

- 1. Patient Care _____ , _____ , _____ .
- 2. Technical and Clinical Occupations _____ , _____ , _____ .
- 3. Facilities Support _____ , _____ , _____ .

Evaluation by Students

Students were given an opportunity to criticize the Hospital Experience. They should now be asked for a written evaluation of the entire curriculum. Suggested forms for this purpose follow.

STUDENT INTEREST INVENTORY

Directions

Place a check in the appropriate column for each item listed. There is no "right" or "wrong" answer. No grade will be given, and you need not sign your name. Your additional suggestions will be very helpful; space is provided for them at the end of each list, and the opposite side of the sheet may be used if needed.

CURRICULUM TOPICS

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
1. Introduction to AHPP: hospital observation					
2. Folk Medicine, Quackery					
3. Midwifery					
4. Relationship of the individual to community health and social problems, e.g., V.D., Alcoholism, Rubella					
5. Components of the Health Care System - hospitals, clinics, and other community health agencies					
6. Problems of the present health care system					
7. Health manpower needs					
8. Health insurance					
9. Case I - High School Physical					
10. Case II - Fractured Leg and Hospitalization					
11. Case III - Appendicitis					
12. Case IV - Food Poisoning					
13. Case V - Emphysema					
14. Case VI - Tuberculosis					
15. Case VII - Childbirth					
16. Case VIII - Drug Overdose					
17. Ethics of the Healing Arts					
18. The Health Worker and The Law					
19. The Role of the Learner					
20. Hospital Experience					

SUGGESTIONS REGARDING CURRICULUM TOPICS FOR NEXT YEAR:

TASKS

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
1. Measuring weight using balance scale, measuring height.					
2. Performing vision test using Snellen Chart.					
3. Taking pulse using a stop watch.					
4. Taking temperature, using Fahrenheit thermometer.					
5. Testing reflexes using a percussion hammer.					
6. Listening to heart with stethoscope.					
7. Taking and recording blood pressure with sphygmomanometer.					
8. Taking respiration rate.					
9. Performing urine tests.					
10. Filling out hospital admission forms.					
11. Filling out medical history and physical forms.					
12. Filling out health insurance forms.					
13. Bed making.					
14. Blood typing.					
15. Splinting a broken leg.					
16. Interviewing health personnel and others.					
17. Terminal digit filing.					
18. Alphabetical filing.					
19. Contacting community services on telephone.					
20. Placing patient on guerney and transporting.					
21. Performing closed cardiac massage.					
22. Performing artificial respiration; mouth-to-mouth resuscitation.					
23. Streaking and examining agar for bacterial growth.					

TASKS (continued)

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
24. Performing PKU test.					
25. Taking blood count.					
26. Positioning a patient (postural drainage).					
27. Using microscope.					
28. Measuring vital capacity with spirometer.					
29. Designing meal plans.					
30. Measuring with a centimeter ruler.					
31. Autoclaving.					
32. Casting.					
33. Walking on crutches.					
34. Hydrotherapy.					
35. Taking dictation and recording vital signs.					
36. Analyzing and evaluating health information (quackery, folk medicine).					
37. Treating patient for shock.					

SUGGESTIONS REGARDING TASKS FOR NEXT YEAR:

LEARNING METHODS

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
1. Role playing improvisations.					
2. Debates.					
3. Making posters, cartoons, drawings, charts, exhibits.					
4. Reading aloud - teacher.					
5. Reading aloud - student.					
6. Independent reading.					
7. Classroom discussions, "rap" sessions.					
8. Guest speakers.					
9. Demonstrations by teacher or guest.					
10. Lectures.					
11. Report writing.					
12. Presenting reports or individual research to class.					
13. Films, slides, records, other audiovisuals.					
14. Library research.					
15. Performing plays, skits, charades, games.					
16. Performing lab activities, hospital tasks in classroom.					
17. Programmed learning modules.					
18. Keeping personal notebooks, occupational files.					
19. Interviewing hospital personnel (others also).					
20. Buddies.					
21. Tutors.					
22. Field trips to health care facilities.					
23. Collecting health related information.					

SUGGESTIONS REGARDING METHODS FOR NEXT YEAR:

FIELD TRIPS - FREMONT

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
1. St. Francis Hospital - Introductory Hospital Observations.					
2. Martin Luther King Jr. Hospital--Visit Site.					
3. Kedren Clinic--Mental Health.					
4. Florence-Firestone Health Center--Drug Abuse, etc.					
5. South District Health Center--Sanitararians.					
6. UCLA - AHPP Office--Pollution Exhibits.					
7. Griffith Park--Toyon Canyon Land Fill Site.					
8. Harbor General Hospital--Orthopedic Service.					
9. Children's Hospital--Adolescent Clinic.					
10. St. Francis Hospital--Internship.					

SUGGESTIONS REGARDING FIELD TRIPS FOR NEXT YEAR:

SUGGESTIONS REGARDING FIELD TRIPS FOR NEXT YEAR:

CLASSROOM VISITS - FREMONT

	VERY INTERESTING	INTERESTING	UNINTERESTING	VERY UNINTERESTING	NOT COVERED IN CLASS
1. Kedren Clinic - Mental Health Workers.					
2. State Health Department - Quackery Lecture and demonstration.					
3. Private Physician - Physical Examination.					
4. Schaeffer Ambulance Service - Demonstration of emergency procedures.					
5. South Health District (Ward/Willis) - Sanitarians.					
6. Centinela Valley Community Hospital - Inhalation Therapist.					
7. Southwest Health Center - Film and discussion on maternal & child health.					
8. Marina Mercy Hospital - Demonstration blood typing - Laboratory Technician.					
9. Allied Health Classes - Hawaii 5-0 film on Quackery.					
10. APCD - Air Pollution Speaker.					
11. Florence-Firestone Health Center - Talk on health education - Student Recruitment Coordinator.					

SUGGESTIONS REGARDING CLASSROOM VISITS FOR NEXT YEAR:

Culmination Program

As a summation of the year's work, the class selects and develops a final project for presentation to other students and/or to adult groups, such as parents. This project may take the form of a Health Career Day produced for the rest of the school, or the students may decide to write and stage a play relating to the curriculum. The form and content of the final project are determined by the students. During the program, students will be given Certificates of Completion of Phase I.

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